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BULLETIN

OF THE

Mississippi Agricultural and Mechanical College

CATALOGUE 1915-1916

ANNOUNCEMENTS 1916-1917

AGRICULTURAL COLLEGE, MISSISSIPPI

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BULLETIN

OF THE

Mississippi Agricultural and Mechanical College

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ANNOUNCEMENTS 1916-1917

MC COWAT-MERCER, JACKSON, TENN 56655

CALENDAR FOR 1916-1917.

Session begins	September 20, 1916
Entrance Examinations, Matriculation, and Registration for the First Term	September 20-21, 1916
Recitations begin	September 22, 1916
Thanksgiving Day (Holiday)	November 30, 1916
T. L. Mellen Contest in Oratory	December 8, 1916
Christmas Holidays begin	12 M., December 22, 1916
Second Term begins	8 P.M., January 2, 1917
R. E. Lee's Birthday Celebration	January 19, 1917
Lincoln's Birthday Celebration	February 12, 1917
Washington's Birthday Celebration (Holiday After Chapel Exercises)	February 22, 1917
Annual Debate with Mississippi College	February 27, 1917
Annual Debate with Alabama Polytechnic Institute	March 3, 1917
Third Term begins	March 18, 1917
Annual Field Day.	
Annual Debate with Mississippi State Normal	April 20, 1917
Annual Debate for Alumni Medal	June 2, 1917
Commencement Sermon	June 3, 1917
Contest for the Albert City Medal in Vocational Speaking	June 4, 1917
Annual Address and Delivery of Diplomas	June 5, 1917

TRUSTEES.

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Hon. J. W. Cutrer.....Clarksdale
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TRUSTEES WHOSE TERMS EXPIRE IN 1920.

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†On leave of absence.
*Resigned.

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WILLIAM BURLEY TISDALE, B. S. A., Instructor in Botany.
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HARRY BATES BROWN, Ph. D., Plant Breeder.
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HORACE HAMMERTON HARNED, B. S. A., Assistant Bacteriologist.
†SIDNEY SIBLEY JERDAN, B. S., Junior Animal Husbandman.
†NEWTON FELIX HANSON, B. S. A., Assistant in Animal Husbandry.

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*On leave of absence.

†In co-operation with U. S. Department of Agriculture.

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D. W. McILWAIN, Superintendent of Farm.
J. C. KEAN, Superintendent of Live Stock.
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BENJAMIN VINSON EVANS, Farm Foreman, McNeill Station.
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MILTON DAILY REED, B. S. A., Farm Foreman, Delta Station.

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†MISS EDNA EARL WADDELL, Stenographer.
†W. T. MAY, Stenographer.
†C. P. SELZER, Stenographer.

*Resigned.
†In co-operation with U. S. Department of Agriculture.

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I. D. SESSUMS, B. Sc., Assistant Chemist.
H. S. CHILTON, B. Sc., Assistant Chemist.
MARVIN GIEGER, Ph. B., Assistant Chemist.
H. S. MONTAGUE, B. S., Assistant Chemist.
H. G. LEWIS, B. S., Assistant Chemist.
FRED J. GRAY, B. S., Assistant Chemist.
H. SOLOMON, B. Sc., Assistant Chemist.
*D. L. CHADWICK, Assistant Chemist.
H. L. McLAVY, B. S., Assistant Chemist.
J. M. COLEMAN, B. S., Assistant Chemist.
MRS. PEARL HENRY SAUL, A. B., Stenographer.

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CALVIN BREWSTER POWELL, B. B. S., Cashier.
WILLIAM BRITTON SEWELL, Bookkeeper.
ROBERT LESLIE BOWEN, Bookkeeper.
MRS. RUBY WILLIS, Stenographer.

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ALFRED PATRICK LUSK, Steward.
H. WILL NELSON, Secretary of Y. M. C. A.
R. C. BRIDGES, Proctor of Buildings and Grounds.
H. L. ROBERTS, Manager of the Laundry.
E. F. MITCHELL, Power Plant Engineer.
PEARLY B. MONOSMITH, Florist.
MISS HETTIE B. MOORE, Hospital Nurse.
*MRS. F. B. McWHORTER, Matron at Hospital.
EUSTACE WINFRED MINGEE, B. Sc., Secretary to the Registrar.
T. W. TATE, Butter Maker.
LUCAS GORDON BOYD, Foreman of Dairy Farm.
ROBERT E. LEE GILMORE, Herdsman.
EDWARD LUCKE, Assistant Commandant.

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*Resigned.

STANDING COMMITTEES OF THE FACULTY.

Discipline—President Hightower, Professors Walker, Herbert, Logan, Critz, Robert, Farrell.

Library—Professors Herbert, Briscoe, Harned, Brunson, Davis.

Catalogue—Professors Herbert, Hand, Bowen, Harned, Gay, Mellen.

Examinations—Professors Logan, Moody, Weddell, Barnett, Beal.

Courses of Instruction—Professors Walker, Hand, Logan, Moore, Bowen, McKay, Harned, Bunson, Robert, Patterson, Carpenter, Critz, Moody.

Classification of Students—Professors Walker, Logan, Robert, Critz.

Athletics—Professors Walker, Harned, Scoates, Sessums, Chadwick.

Student Publications—Professors Bowen, Gay, Scoates, Weddell, Mellen, Farrell.

Student Organizations—Professors Hand, Logan, Bowen, Gay, Brooks, Farrell.

Campus and Buildings—Professors McKay, Gay, Carpenter, Marshall, Ranck, Barnett.

Entertainments—Professors Herbert, Brunson, Ranck, Barnett, Clayton.

Student Debates—Professors Mellen, Bowen, Brooks, Davis, Weddell.

Graduate Study—Professors Walker, Logan, Robert, Critz.

GENERAL STATEMENT.

Objects and History of the College.

The college owes its origin to an act of the general government, passed in 1862, to encourage the establishment of industrial colleges in the states to benefit "agriculture and the mechanic arts." This act, among other things, provides for the "endowment, support and maintenance in each state of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

The status of the argricultural land scrip fund, donated by the United States government, is as follows: the scrip, representing 207,920 acres of public land was sold for about ninety cents per acre, realizing in currency $188,298. This amount, by judicious management, was increased to $227,150, which is now in the state treasury, represented by thirty-two-year bonds, running from 1896 to 1928, bearing six per cent. interest per annum.

The legislature, by the act of February 28, 1878, divided the sum equally between Alcorn Agricultural and Mechanical College and this college, giving to each $113,575. A subsequent legislature authorized the sale of $15,000 worth of bonds to purchase lands; so that the amount now in the state treasury to the credit of this college is $98,575, yielding an annual income of $5,914.50.

The legislature of Mississippi, in accepting this endowment —a trust fund from the general government—prescribed the following in the powers given to the board of trustees:

"The establishment and maintenance of a first-class institution, at which the youth of the state may acquire a common

school education and a scientific and practical knowledge of agriculture, horticulture, and the mechanic arts; also, the proper growth and care of stock, without, however, excluding other scientific and classical studies, including military tactics.

"They shall regulate the course of study, rates of tution, management of experimental farm, manner of performing labor, and the kinds to be performed by students."

The acts of the general and state governments plainly define the objects of the college. The "leading objects" must be to "benefit agriculture and the mechanic arts." Should studies be taught other than such as relate to these interests, they are to be considered secondary, and rather as a means by which to comprehend more readily the sciences underlying agriculture and the mechanic arts.

The instruction at the college must be such as to educate and direct the minds and tastes of students to agriculture, horticulture, care and growth of stock, management of farms, manner of performing labor, and to the mechanic arts. The college is not to be in the strictest sense literary, classical or military; but, rather, it is to be a college in which the industrial classes shall be given a general education, combined with such scientific and practical knowledge as will make them familiar with the nature of the objects and the forces with which they have to deal.

This necessitates that special stress should be laid on such sciences as underlie agriculture and the mechanic arts, viz: Chemistry, botany, geology, zoology, entomology, physiology, mechanics, mathematics, physics, etc. To understand these properly, a very liberal culture, especially in English, is requisite. The various conditions contributing to an intelligent understanding of agriculture and the mechanic arts comprehend an education as broad and liberal as that needed in mastering any profession. This education, however, must, of necessity, differ in kind. Students whose education is intended to promote the interests designated in the acts must omit some studies taught in other colleges, looking to a general or special training. This education, too, is to be practical and industrial; students must not only be familiar with farms, machinery for iron and woodwork, and tools, but they must also labor themselves, and

in this labor find a part of their education, the object of which is to create a taste for agriculture and mechanical pursuits, and to fix and preserve habits of industry.

In conformity with the acts designated, the board of trustees located the Mississippi Agricultural and Mechanical College in Oktibbeha county, one and a half miles from the town of Starkville.

The college is on a permanent basis, the legislature having made provision for both agricultural and mechanical instruction, both in theory and practice. There are now provided five courses, agricultural, engineering, industrial education, general science, and business administration, all leading to the degree of Bachelor of Science in the collegiate department. There is also a two-year short course in agriculture, which does not lead to a degree. The farm, creamery, stock barns, and sheds, gardens, orchards, and shops for instruction in wood and iron and foundry work, are ample for practical training.

The trustees have established a short individual course, a two-year short course in agriculture, and a collegiate course, which afford the youth of the state ample means of acquiring, in accordance with the law, a thorough elementary education and also a scientific and practical knowledge of agriculture and the mechanic arts.

The large number of students in attendance each year shows that the college supplies a long-felt want to the people of the state by giving a thoroughly practical education to its youth. It is evident that a large class of our people desire the young men of the state to combine manual labor and laboratory work with literary instruction; and this is a correct idea, where boys are to be educated for industrial pursuits. Training of this kind should be in connection with farm and shop, where industrious habits may be preserved or where such habits may be acquired by those not having them already. Study for four years without the habit of manual labor creates a disinclination for such work, and tends to separate brain work and hand work, giving discredit to the latter.

The instruction in the academic and scientific departments is of the highest importance, and nothing can take precedence over it. The industrial feature comes next, and with it is

joined the pecuniary assistance which a student can obtain by his work. It differs from that of the old manual labor school in this: there the important matter was to work enough to pay all expenses, the education being a secondary consideration compared with earning enough money to pay one's way. The boy who labors most of his time is physically too tired to accomplish much in his studies, whereas, moderate labor facilitates study. It is desirable that this feature should be understood in connection with the college. It must not be thought that a boy can work his way through by his labor, and also get a first-class education. It is impossible to do both. He could not accomplish both if he had a school at his very door. A student here also has many advantages; he not only gets his tuition free, but also has an opportunity to work and pay for part of his board by his own labor. At home he would have to incur the expense of board and clothing—an expense unavoidable in attending school under any conditions.

EXTRACTS FROM THE LAW IN THE CODE.

Tuition Free and Not Free.—"Tuition shall be free in all branches to students of this state for five years."

Dormitory Privileges.—"The privilege of rooming in the dormitory belongs to the free students, and the due quota of boys from each county in preference to all others."

Apportionment of Students.—"The right belongs to each county to have a number of students admitted proportionate to its number of white educable males compared with the whole number in the state."

The Same, How Made.—"The apportionment shall be made and announced by the president of the college annually, and communicated to the superintendents of education of the counties."

The Same, Duty of Superintendent.—"The superintendent of each county after due notice published, with the consent of the board of supervisors shall give certificates of selection to the number of students to which the county is entitled, and this, in addition to those already in the college, if any. And this selection of new students shall be made by drawing."

The Same, How Certificates Attested, etc.—"The certificate of selection shall be attested by the clerk of the board of supervisors under its seal, and shall entitle the holder to admission into the college, with all its privileges, to pursue all its industrial branches selected, and to enter the sub-class or class for which he is fitted."

APPOINTMENT OF STUDENTS.

The following apportionment of students to the different counties is announced for the session of 1915 and 1916:

County.	No. Entitled.	County.	No. Entitled.
Adams	8	Leflore	4
Alcorn	22	Lincoln	32
Amite	17	Lowndes	12
Attala	22	Madison	8
Benton	8	Marion	12
Bolivar	5	Marshall	12
Calhoun	22	Monroe	24
Carroll	15	Montgomery	27
Chickasaw	13	Neshoba	21
Choctaw	15	Newton	21
Claiborne	6	Noxubee	6
Clarke	18	Oktibbeha	9
Clay	8	Panola	15
Coahoma	5	Pearl River	14
Copiah	24	Perry	6
Covington	19	Pike	14
DeSoto	15	Pontotoc	22
Forrest	19	Prentiss	21
Franklin	13	Quitman	3
George	9	Rankin	13
Greene	10	Scott	14
Grenada	6	Sharkey	3
Hancock	9	Simpson	17
Harrison	42	Smith	20
Hinds	22	Sunflower	9
Holmes	11	Tallahatchie	12
Issaquena	3	Tate	13
Itawamba	19	Tippah	17
Jackson	19	Tishomingo	18
Jasper	14	Tunica	4
Jefferson	6	Union	25
Jefferson Davis	9	Walthall	10
Jones	32	Washington	8
Kemper	13	Warren	16
Lafayette	19	Wayne	25
Lamar	12	Webster	16
Lauderdale	41	Wilkinson	6
Lawrence	10	Winston	26
Leake	18	Yalobusha	14
Lee	28	Yazoo	14

Should more than the number apportioned to a county desire to attend the college, they should send in their applications, through their county superintendents, to the president of the

college. As all counties do not send their full quota, there is always room for some students who make applications in the manner above described. The Code of 1906, extracts from which have been given, virtually devolves upon the county superintendents the responsibility of having their counties represented at the college. The president and the secretary of the college will at all times cheerfully co-operate with them in securing the quota of students from their counties, and to this end will supply all necessary catalogues and circulars, and will, by correspondence give full information desired.

CONDITIONS OF ADMISSION.

Applicants must be in good health and not less than sixteen (16) years of age. Should, however, two brothers, one above, and the other a little under, the specified age, apply, exception will be made in the case of the latter, if he is well qualified in other respects. Those who have been students at other colleges must bring with them testimonials of honorable discharge.

All students on entering college, are required to sign the following pledge:

"Being now about to enter as a cadet of THE AGRICULTURAL COLLEGE, I do hereby acknowledge my obligation to obey all its laws and regulations. And I pledge myself, ON HONOR, that so long as I am a cadet at the college during term time, or while I remain at the college during vacation, I will not have in my possession any deadly weapon, except such arms as are furnished by the military department, without the consent of the president or faculty. And I do further pledge myself, on honor, that I will not join or form any connection with, either directly or indirectly, any secret club, society, fraternity, or other organization, composed in whole or in part, of cadets of the college, or attend the meetings of, or wear the badge of any such organization. And I do further pledge myself, ON HONOR, that I will not treat with disrespect by shouting or otherwise, any applicant for admission to the college, and will not engage in 'hazing' or any other maltreatment of a cadet, after admission to the college. And I do further pledge myself, ON HONOR, that I will not smoke cigarettes while I am at college."

Unless a young man is willing to take the above pledge in good faith, he is advised to remain away; for no such young men will be tolerated in the college.

ENTRANCE REQUIREMENTS.

The requirements for admission to the freshman class of the Mississippi Agricultural and Mechanical College for the session of 1916-1917 are ~~eight~~ 12 entrance units. An entrance unit is the credit a student receives for pursuing a subject five days in the week for at least thirty-five weeks in a high school or preparatory school. In computing entrance units it should be noted that the laboratory period must be twice the length of the recitation period. Three units are required, one in English (Rhetoric and Composition), one in Mathematics (Algebra), and one in History (Greek and Roman). 7 ~~Five~~ additional units must be elected from the following groups and subjects:

GROUP I: *English*—Composition, Rhetoric, Literature.
GROUP II: *History*—Greek and Roman, General, English.
GROUP III: *Mathematics*—Algebra, Plane Geometry, Trigonometry.
GROUP IV: *Foreign Languages*—German, Greek, French, Latin, Spanish.
GROUP V: *Sciences*—Agriculture, Botany, Chemistry, Physiology, Physics, Physical Geography, Zoology.

ADMISSION.

Any student may meet the conditions for admission by having a certificate sent from the principal of the school which he has been attending direct to the registrar of the college. This certificate should give the subjects, the length of time taken, and the grade received unless the regular form of certificate is used. School principals are urged to use the form of certificate given on next page. These forms will be sent on application to the registrar. All students desiring to make application for advanced standing must have their grades sent direct from the principal to the registrar of the college and they are urged to use the regular form. As this method of admission is by far the most satisfactory one, all students are urged to use it and have these certificates sent to the registrar at least one month before the opening of college.

The following is the form of blank that principals and superintendents are requested to use in indicating the entrance credits to which their students are entitled. Copies of these blanks may be obtained on application to the Registrar.

High School Certificate of Credits for Admission into the Agricultural and Mechanical College of Mississippi.

I hereby certify that.....

has completed satisfactorily the following courses of study in.....school, and that he is entitled to the High School credits indicated in the column of entrance units given below:

Courses.	Entrance Units.
1. **English**—(a) Composition	
(b) Rhetoric	
(c) Literature	
2. **Mathematics**—(a) Algebra	
(b) Geometry	
(c) Trigonometry	
3. **History**—(a) Greek and Roman	
(b) English	
(c) Mediaeval	
(d) Modern	
4. **Modern Language**—(a) French	
(b) German	
(c) Spanish	
5. **Ancient Language**—(a) Latin	
(b) Greek	
6. **Science**—(a) Agriculture	
(b) Botany	
(c) Chemistry	
(d) Physics	
(e) Physical Geography	
(f) Physiology	
(g) Zoology	
7. **Practice**—(a) Manual Training	
(b) Drawing	
8.	

.....Principal.

Date.....

An entrance unit is the credit given for a study pursued in a high school or preparatory school for at least thirty-five weeks with five recitations per week of not less than forty minutes each.

ACCREDITED SCHOOLS.

The following is a list of high schools, preparatory schools and academies that have submitted their courses of study and have been accepted: Aberdeen, Ackerman, Augusta, Amory, Batesville, Bay Springs, Betheden, Biloxi, Blue Mountain (H. A.) Booneville, Brandon, Bookhaven, Brooksville, Buena Vista (A. H. S.), Byhalia, Camden (A. H. S.), Canton, Carrolton, Centerville, Chamberlain-Hunt Academy, Charleston, Clarksdale, Cleveland, Coffeeville, Collins, Columbus, Columbia, Como, Corinth, Crystal Springs, Daleville, Durant, Derma (A. H. S.), Edwards, Ellisville, Enterprise, Eupora, Fayette, Florence, Forest, French Camp, Gloster, Goodman (A. H. S.), Greenville, Greenwood, Grenada, Gulfport, Hattiesburg, Hazlehurst, Hernando, Hickory, Holly Springs, Houston, Indianola, Itta Bena, Iuka, Jackson, Kilmichael (A. H. S.), Kosciusko, Kossuth (A. H. S.), Lake, Laurel, Leland, Lexington, Liberty, Lucedale, Lumberton, Maben, Mathiston, McComb, McHenry, Macon, Magnolia, Meridian, Morton, Montrose, Moorehead (A. H. S.), Moss Point, Mound City, Mt. Olive, Natchez, Nettleton, New Albany, Newton, Oakland (A. H. S.), Ocean Springs, Okolona, Oxford, Pass Christian, Pascagoula, Pelahatchie, Philadelphia, Picayune, Pontotoc, Poplarville (A. H. S.), Port Gibson, Purvis, Quitman, Rolling Fork, Rosedale, Sardis, Scooba (A. H. S.), Senatobia, Shubuta, Shuqualak, Starkville, Summit, Toccopola, Tupelo, Tunica, Tylertown, Union, Union Church (A. H. S.), Vaiden, Vancleave, Verona, Vicksburg, Walthall, Washington, Water Valley, Wesson, West Point, Wiggins, Winona, Woodville, and Yazoo City; Pine Bluff, Hot Springs, Arkansas; and C. H. S., Memphis, Tennessee; and Weatherford, Texas. There are other schools in the state which prepare students for the Freshman class but they have not yet submitted their courses of study to the Examination Committee. Such schools are requested to do so at once in order that they may be added to the list of accredited schools.

Principals are requested to exercise care in the giving of credits and to see that the certificate contains all the credits that have been earned and no more. Students that have graduated from high schools are requested to present the certificate

rather than the diploma. Students without credits may take the examination on the eight entrance subjects.

DIRECTIONS FOR STUDENTS.

On Arrival at the College.

On arrival at the college, the student should report at once to the office of the college registrar in the administration building, room 105, fill in the registration blanks that will be provided, carry same to secretary's office, make the required deposit and receive his matriculation card. He should then go to the office of the commandant, present his matriculation card and receive his room assignment. He should then go to the secretary of the committee on examinations, present his **matriculation** card and receive his **entrance** card or directions in regard to satisfying the entrance requirements. When he has satisfied the requirements for entrance and has received his **entrance card,** he should present it to the director of the school in which he has chosen his course. The director will then register him, assign him to his class or section and tell him what books will be required.

During the week of the opening of college, members of the college Y. M. C. A. meet all incoming trains for the purpose of giving assistance and directions to new students. The Association also maintains a bureau of information in room 100, on the first floor of the Administration Building.

If a student should arrive at the college on a night train too late to enter regularly, he should report immediately to the office of the commandant, room 100, and receive temporary room assignment.

The offices of the president, vice-president, secretary, registrar, and commandant are all on the first floor of the Administration Building.

EXPENSES.

When they enter, before they are assigned to a room in the dormitory or admitted into classes, students are required to

make a deposit with the secretary of the college for the items specified below:

Matriculation, library and lyceum	$ 5.00
Hospital fee	5.00
Gymnasium fee	2.00
Laboratory material	2.00
Rent on furniture	5.00
Athletic admission	3.00
Uniform	19.00 17.00
Advance board for first month	12.50
	$53.50 $ 51.50

The first six items named are for the entire session.

In addition to the above, students who are not residents of Mississippi are required to pay an annual tution fee of fifty dollars.

Mississippi students are entitled to five years free tution but if they remain in college a longer period they are required to pay a tution fee of $30.00 per session for each additional session.

Day students (those who do not room in the dormitories) will be charged a fee of three dollars each for heat in class rooms for the session.

No part of the fees will be refunded to students who leave college after entering and being classified.

Day students are required to deposit $5.00 which is held to their credit during the time they remain in college and is returned when they withdraw, provided no charge for breakage or damage is made against them.

Matriculation Fee.—The matriculation fee of $5.00 is divided into a library of $2.50, a lyceum fee of $1.25, and a campus fee of $1.25. The library fee is used for buying books, periodicals and papers for the general library of the college, to which the students have free access. The lyceum fee is to provide lectures, musical numbers and other high class entertainments. From eight to twelve of these are furnished each session, no admission being charged students. The campus fee is expended

in keeping the buildings and grounds in a thoroughly sanitary condition for the protection of the health of students.

Hospital Fee.—The college hospital is maintained solely for the use of the students and the hospital fee is used for the purchasing of medicines, equipment and supplies and for paying for the hospital service.

Gymnasium Fee.—The gymnasium fee is to provide physical training for all students. Gymnastics is a part of the regular course, two periods per week being required of all freshmen, and field sports provided for the upper classmen. The fee is used in providing equipment for these activities.

Furniture Rent.—The college now furnishes each room in the dormitories with all necessary furniture, and students are charged a rental fee of $5.00 per session. This effects a considerable saving, provides equal accommodation for all and makes it possible to maintain better sanitary conditions. All beds are single beds and each student should bring with him such articles as blankets, sheets, pillow cases, and towels.

Athletic Admission.—The payment of this $3.00 entitles the student to admission to all college athletic events held on the campus during the entire session, which include football, basketball, baseball and track contests.

Uniform.—The complete regulation uniform consists of blouse, trousers, cap, two gray flannel shirts and one black tie, and costs **about** ~~$17.00.~~ $19.00.

All students are required, by a resolution of the board of trustees, to wear the prescribed uniform within five miles of the college buildings.

It is strongly advised that each student have one pair trousers and one blouse in addition to the complete uniform required at entrance. These two items will cost ~~$11.75~~ and will $13
enable the student to make a neat appearance at all times. It is not advisable to wear citizen's clothes while at school and permits to do so will be limited to cases of absolute necessity.

Board.—All students rooming in the dormitories and taking meals in the mess hall are required to have a deposit with the secretary, **at the beginning** of each board month, of not less than $12.50 to cover board in advance for the following month.

A board month consists of 28 days with the exception of the month in which is included the Christmas holidays and this month is 35 days in length; but as students who are away from college during the holidays are allowed credit for ten days board, they actually pay for only 25 days this month.

Board is charged at actual cost, to which is added laundry, lights, water and heat. Laundry is $1.25 per month; lights and water, 50 cents, and the charge for heat varies according to what is used, running from $1.00 to $1.50 during the winter months. The past session the total cost per month was an average of $10.82.

The dates of beginning of the different board months for the session of 1916-1917 are shown below and the monthly settlement with the secretary of the college should be made on these dates:

October 12th.
November 9th.
December 7th.
January 11th.
February 8th.
March 7th.
April 4th.
May 2nd.

Students must see for themselves that the necessary deposit is made and not depend on the college authorities notifying parents or guardians.

Four days are allowed students at the beginning of each board month in which to make settlements with the secretary. After the expiration of the four days those who have not made the required deposit must pay the day rate.

There must be a settlement at the end of each scholastic month; students who can not pay must leave the college. No student will be given an honorable discharge unless all dues are paid.

Students absent from the college on permit for six or more days may receive credit on board for such absence by complying with the regulations governing leaves of absence, but in no case is credit given for a shorter period than **six consecutive days in one board month.**

Duties will be suspended for the Christmas holidays, and a credit will be given on board to all students who are away during the the entire period of the Christmas holidays, who, on their return, comply with regulations governing leave of absence, but no additional credit will be given to those who leave before duties are suspended, or to those who may be late in returning, as there can be practically no reduction of expenses in running the mess hall except during the authorized holiday period.

Personal Checks.

The college will positively not advance cash, or allow credit on private checks or drafts, and will handle them only for collection. All obligations to the college should be paid in cash, bank exchange, certified checks, cashier's checks, post office or express money orders.

By order of the board of trustees, students are not permitted to draw money deposited with the secretary except in final settlement. Therefore, parents and guardians should supply spending money direct to their sons and wards and not deposit it with the secretary, expecting it to be drawn out in violation of a specific order.

Students should be provided with about $65.00 when they reach the college, of which only $51.50 should be deposited with the secretary. The remainder will be needed to purchase books, stationery, etc. Text-books and drawing material will probably not exceed $7.00 per term for students of the freshman class, and $4.00 per term for those of the industrial training department.

The total expense for the average student, including fees, uniform, board, laundry, heat, lights, water, books, stationery, etc., need not exceed $150.00 for the session.

Those students who wish to assist in paying these expenses work on the farm, in the garden, in the dairy, and in other departments where employment can be obtained, from two to three hours a day, three to five days a week, and on Saturdays. They receive ten cents an hour for labor faithfully performed. With ordinary weather, they may earn from $25.00 to $50.00 a year. Money so earned is credited on account for board, and it

is not to be drawn even when the deposit is more than $12.50. Quite a number of students, by their labor, have paid one-third of their total expenses for the session, some have paid one-half, and a few have paid all their expenses.

We recommend, however, that where a student's financial condition will permit it, that he devote all of his time to his studies and laboratory duties rather than to try to earn money while in school.

The board of trustees desire that parents and guardians co-operate with the college authorities in encouraging the practice of economy, and it is suggested that students should not be supplied with much spending money in excess of what is required for necessary expenses. A large number of the best young men attending the institution spend very little each month above actual expenses, and parents need not fear that their boys will be embarrassed by reducing expenses to a minimum.

Some students register as being 21 years of age when they are much younger, and in the absence of other information this statement is necessarily accepted. They do this for the purpose of getting permits to go on excursion trips, visiting near-by towns, and drawing money from the secretary's office, without having to secure authority from parents or guardian, this authority being required of all students under age before leave of absence is granted. Parents and guardians are requested to write the secretary stating the age of the student and this will assist the college authorities in maintaining discipline and will also prevent the useless expenditure of money that, in some cases, can not well be afforded or easily provided.

An itemized statement of the account of any student will be sent to his parent or guardian, provided the secretary is requested by the parent or guardian to do so; otherwise, statements will not be sent, owing to the great amount of work involved in making them.

AGRICULTURAL COLLEGE (**not** Starkville) is our postoffice and our express office. Both postoffice and express money orders can be bought or collected at "Agricultural College," without the necessity of going to Starkville—over a mile away. Much delay is often caused by letters being addressed to

"Starkville" instead of to "Agricultural College." There is also a Western Union Telegraph Office on the campus and telegrams should be addressed to "Agricultural College," and not to "Starkville."

Students who travel on the Mobile & Ohio, or the Southern Railway in Mississippi (line from Columbus to Greenville), can get an order enabling them to secure a ticket a two cents a mile, provided they make application to the secretary of the college in time, and furnish in each case the following information: (1) Name of applicant; (2) Point at which train will be taken on either of the above roads; (3) Name of railroad. No other road in the state grant reduced rates.

DISCIPLINE.

The president, by college regulation, is responsible for the government and management of the college and supervises and controls all the departments, collegiate and otherwise.

The commandant has immediate command of the corps of cadets and is responsible for the military organization. On his recommendations the president appoints the officers and non-commissioned officers of the regiment. All permits for privileges and all excuses and explanations for delinquencies must be submitted through him. It is his duty to report to the president for his action, all violation of the college regulations. He assists the president and faculty in their efforts to enforce discipline, and sees that the punishment given by them is served.

To enforce discipline and preserve orderly conduct, reports are made by the cadet officers and non-commissioned officers and demerits and punishments are given by the president, or the commandant under the president's direction, for those reports which are not removed on explanation submitted to the commandant. Students have the right of appeal in writing, through the commandant, to the president, when they think injustice has been done them.

The scale of demerits is from 1 to 10, according to the degree of the offense.

The grades of punishment are:

I. Reprimand, demerits, privation of privileges, walking extras, and performing extra drills.

II. Arrest, confinement to room or college limits, and reduction to ranks, of cadet officers and cadet non-commissioned officers.

III. Suspension, dismission with privilege of resigning, and public dismission.

IV. Expulsion.

Only the president and faculty, the commandant and the registrar, the latter two acting under the direction of the president, can award punishment. Punishments of the first and second grades are given by the president, and those of the third and fourth grades by the faculty.

The discipline has for its chief aim and object to secure with as little severity as possible, prompt and cheerful obedience to, and respectful, quiet demeanor towards the college authorities, orderly conduct in the section rooms, dormitory, mess-hall, chapel, and in the fields and the shops.

The military feature is a most effective means of enforcing and securing discipline. The company, battalion and regimental organization gives to the cadet officers and cadet non-commissioned officers acquaintance with the proper exercise of authority, and cadets acquire habits of obedience. Discipline is made to conduce to the furtherance of the principal aim and object of the college—its industrial feature.

In order to maintain discipline, do justice to all, clearly discriminate between the faithful and the unfaithful and render a correct report of conduct, class standing, etc., at the end of each half term, reports are sent out, and the attention of the patrons of the college is respectfully directed to the following regulations governing absences, and their co-operation is earnestly requested:

I. After regularly matriculating, no student, except on recommendation of the surgeon, will be permitted to go home, or elsewhere, except at such time as the faculty may designate. This privilege may be granted upon explicit request of the parent or guardian, for reasons approved by the president.

II. All applications for leave to go home, or elsewhere, must be for a specified time.

III. Any student who is on leave of absence and can not return at the expiration of the time granted, must notify the president, give reasons therefor, and ask for extension of leave, designating the date on which he hopes to be able to return.

GRADING AND EXAMINATIONS.

1. Numerical grades are given for daily recitations and for examinations. Grades from 90 to 100 indicate excellent work; from 80 to 90, good work; from 70 to 80, fair work; from 60 to 70, poor work; below 60, failure.

2. The grade for entrance into the freshman class shall not be less than 60.

3. Any student making a term grade below 60 in a subject, shall be debarred from the final examination on that subject, unless the instructor, with the approval of the head of the department, shall see fit to waive this requirement.

4. A student who is qualified for examination in a subject, and has made an examination grade below 60 in it, shall be entitled to a second examination, to be given not later than the end of the first term immediately following the term in which the student failed; or, in case the student does not re-enter college at the beginning of the next term, he shall be required to take this second examination not later than the end of the first half term after he does re-enter college. In case the student fails on this second examination, or neglects to take it during the time indicated, he shall be required to take the subject over in class or under an instructor approved by the president of the college, and the head of the department in which the subject lies. This special examination may be taken on any Saturday afternoon by agreement of professor and student.

5. A student who has qualified for an examination and for reason satisfactory to the instructor and the head of the department has failed to take it, shall be entitled to an examination to be taken under time condition provided for in section 5, and such students shall be entitled to a second examination.

6. Any student who has not taken the final examination in a subject because of the provisions of section 4, may, at the discretion of the instructor, with the consent of the head of the department, take this examination at the time and under conditions provided for in section 5.

7. In all examinations for advanced standing in a subject, or for the passing off of a subject in which he has no term grades, the student shall be required to make a grade of 60; and at the discretion of the instructor, with the consent of the head of the department, students taking examinations

under the conditions outlined in this section and in sections 4, 5 and 6, may be required to make a grade of 70.

8. All special final examinations shall be held at such times as are designated by the committee on examination.

9. In case a student be absent from one or more recitations he may, if the instructor see fit, be required to make up the work he missed.

10. In case a student be absent one-fourth or more of the time, he may be required to stand a special examination for a grade. This examination may be, at the discretion of the instructor, combined with his average daily grade for that term, and this average of the special examination, when the instructor sees fit to disregard the daily grades, shall constitute the grade for the term.

11. In subjects requiring practical work, for which an examination would not be an adequate test and in which the making up of work would be impracticable, the passing or the not passing of a student shall be left to the discretion of the instructor and the head of the department.

12. Partial examinations may be held on a subject, when, in the judgment of the instructor, it is advantageous to do so, and the average of these partial examinations shall constitute the final grade on that subject.

13. On all reports for a student's final standing the word "passed," together with the numerical grade, or the word, "failed," where he has failed, shall be reported. No final examination grades shall be turned into the office, but merely the final standing.

14. Under the head of "Remarks," on each report where a student has failed to receive a grade, the instructor shall indicate the reason why no grade has been given.

15. It shall be the duty of each professor to make written report to the president at the end of each half-term of students not doing satisfactory work in subjects taught in his department.

HONORS.

1. Honors shall be given at the end of each session in each college class to every member who shall have made either:

(a) An average grade of not less than 85 in his entire year's work, to be determined by multiplying the credit hours of each course by the final grade for that course, and averaging the total; or

(b) A grade of not less than 80 in each subject taken during the year.

2. Special Honors shall be given as above to those who have made either:

(a) An average grade of not less than 90 in his entire year's work; or

(b) A grade of not less than 85 on each subject taken.

3. Diplomas endorsed "With Honors" shall be awarded Seniors who shall have made Honors or Special Honors in two years of their course, one of which shall be their Senior year.

4. Diplomas endorsed "With Special Honors" shall be awarded Seniors who shall have made Honors or Special Honors in three years of their course, one of which shall be their Senior year.

5. Diplomas endorsed "With Highest Honors" shall be awarded Seniors who shall have made Special Honors during three years of their course, one of which shall be their Senior year.

6. No student shall be awarded a diploma with Honors who has not completed all back work before entering on the work of the Senior year.

7. No student shall be awarded any honors who does not take all the work assigned his class each year.

8. In calculating averages for determining Honors, Conduct grades shall be taken into account in addition to the class work. These Conduct grades shall be calculated as provided under regulations now in force. For the purpose of averaging, five credit hours shall be assigned to Conduct each term.

9. Students who undertake certain student activities shall count their record in these activities in their calculation of grades for Honors, as follows:

(a) Grades in Bible and Mission Study, to be given by the instructor, under the supervision of the Secretary of the Y. M. C. A. One credit hour per term. Student teachers of these classes shall be graded by the Secretary, giving two credit hours a term.

(b) Grades in Association work, to members of the Y. M. C. A. cabinet to be given by the Secretary of the Association. One credit hour a term.

(c) Grades in Debate, to all who shall take part in any final official debate, either local or inter-collegiate, to be given

by the Professor in charge of Public Discourse. Each debate shall receive three credit hours.

(d) Grades in Oratory, to all who compete in the contest for the Mellen medal, and to the representative of the college in the Mississippi Inter-collegiate Oratorical contest, to be given by the Professor of Public Discourse. Three credit hours.

(e) Grades in Journalism, to the editorial staff of the College Reflector, to be given by the Chairman of the Committee on Student Publications. If the Reflector is a weekly, three credit hours per term; if a monthly, one credit hour per term.

(f) Grades in Athletics, to members and substitutes on the football, basketball, baseball, and track teams, to be given by the Director of Athletics. Three credit hours for each of the subjects named.

10. In all cases where a student undertakes any student activity mentioned under section nine, he shall be given a grade unless he shall withdraw from the work within three weeks after beginning such student activity.

11. No student shall count for honors in each session more than nine credit hours in the student activities enumerated in section nine. He shall count all grades up to this maximum. If he undertakes more than this amount, he shall receive grade in all but shall be permitted to elect which grades shall be counted to make the nine credits.

12. It shall be the duty of each of the various persons charged above with giving grades, to keep accurate lists of all students undertaking the activity under his supervision, together with a list of those who abandon the work. He shall file his grades promptly with the Registrar, who shall record them. These grades shall not be reported to the parents, but shall be kept in a permanent file.

13. The Registrar shall make up the various lists of Honors, and shall cause them to be published annually in the catalog.

14. Seniors who shall graduate with Honors shall be so listed in all official published lists.

CAMPUS AND BUILDINGS.

ROBERT C. BRIDGES, Proctor of Building and Grounds.

Campus.—The college campus extends over about fifty acres of land; it is situated on a series of gently sloping hills and is shaded by native trees. The greater portion of this area is a lawn of Bermuda sod. The location and surroundings of the institution are conductive to health. The college buildings which are used for instruction are arranged according to admirable plans about the administration building. The plans provide an arrangement by which buildings for allied purposes are grouped together for convenience and facility and it also makes provision for the future growth of the institution by which these allied features may be expanded to accommodate future growth.

During the year 1913, $10,000.00 was spent in concrete walks connecting the various college buildings. A concrete walk has been laid to connect the concrete walk built to the college limits by the citizens of the community. A model macadam highway now connects the college and the town, and the roads on the campus are kept dragged so that they are always in excellent condition. A further sum of $5,000.00 has been expended in storm sewers to carry the surplus rain water from the vicinity of the college buildings, so that students and visitors may be assured at all times of finding the campus in excellent condition and free from mud and slush.

There are now seventy-four separate buildings on the campus; forty-three of this number are residences for professors and instructors, each having the adjacent buildings necessary about a country home. The remainder of the buildings, not especially mentioned, are used as barns and for other general purposes.

Water Works and Sewerage System.—The college water supply is obtained from artesian wells and the water works system is complete, and protected for the health of the college and community. A steel tank with a capacity of fifty thousand gallons is erected on a high central point and this with the necessary fire pumps and general water works system, provides satisfactory fire protection.

The sewerage system is excellent, and every effort is made to make it accomplish its best purposes toward the general health of the residents of the college community.

Electric Lights.—All buildings of the institution, with the exception of a few of the college barns, are supplied with electric lights and power, when the latter is required. The electric light system is served with 110 volt, 60 cycle, alternating current, direct from the station for contiguous buildings, while residences and other of the more distant building are served from transformers on the 2300 volt lines. The shops, laboratories, and all near-by motors are supplied with 220 volt direct current, from which lantern circuits also are run to the various buildings. The generating units are so selected and arranged that the electrical service may be most efficient and useful to all departments of the college.

A series Mazda street lighting system has been installed for the illumination of the college grounds, roadways, and walks, which greatly adds to the comfort and safety of all who must be abroad at night, and aids in the maintenance of general discipline. This work also includes the concealing underground of all wires in the central part of the college grounds, and the removal of all unsightly wooden poles.

All work connected with the distribution of current and the maintenance of the system, with all alterations and additions, is performed by students, in the pay and under the direction of the Electrical Department.

Steam Heating Plant.—The college buildings are heated with steam and by this means are made comfortable at a minimum cost. Perhaps no other system could so well accomplish the purposes required.

Central Power House.—The central power house is located, as its name would imply, near the center of the system which it must apply. In it is located machinery and apparatus for supplying or controlling water works, electric lights and power and steam heat to the general system.

Stephen D. Lee Administration Building.—This building is named to commemorate the first president of the college. As its name implies, it is the administrative center of the institu-

tion. The building occupies a commanding position with regard to other buildings, and was completed during the summer of 1910. The offices of the president, the secretary, and the commandant of cadets, are located in this building, and in it are student society halls, an armory, the college chapel, and a complement of well equipped rooms and offices for all non-technical departments of the college.

Dormitories.—The largest buildings on the campus are student dormitories. They are equipped in such a manner as to afford maximum convenience, with toilet and baths; shower baths are provided in the basements. In some of the more recent additions, each room is fitted up with lavatory with hot and cold water, with shower baths and toilet rooms located on each floor.

The general plan of the campus provides the location for dormitory extension, which will allow room for expected growth.

The Mess Hall.—This important feature of the college has provisions for seating comfortably about fifteen hundred people. The new sanitary kitchen and bakery with tile floor and wainscoting, vermin-proof walls and tile top tables assures cleanliness in the preparation of the food supply. The cooking and serving equipment is entirely modern. The steward's department is supplied with necessary cold storage and general supply storage in order to allow purchases in economical quantity. Ample cold storage rooms for meats and vegetables in separate rooms are located at the ice plant, with future growth of the college provided for in the years to come.

Chemistry Building.—The new chemical laboratory is a practically fire-proof building of modern type of construction, containing on four floors 3,600 square feet of space. It was especially designed to meet the requirements of the several lines of chemical work undertaken by the College. Various laboratories are provided with much specialized equipment, and the department posses scientific apparatus and general facilities which enable it to offer students in chemistry excellent opportunities for study and work.

The building provides adequate space for lecture rooms, stock rooms, library, and for laboratories of general, organic,

engineering, analytical, and agricultural chemistry. The state chemical laboratories on the third floor are fitted with modern appliances for rapid routine analytical work. Plans have been made also for a museum of agricultural and industrial chemistry and for the equipment of a laboratory of electro-chemistry. Each year the department, as a whole, is being strengthened in a material way by the installation of equipment of a permanent character.

W. B. Montgomery Agricultural Hall.—This building named to commemorate Col. W. B. Montgomery, local trustee of the college for twenty-five years, is devoted to agricultural purposes, with the exception of a rear wing, which is occupied by the general library. The facilities of this building are as complete as we can supply.

Engineering Building.—This building contains all engineer-departments of this institution. A great amount of floor space is covered by the building and its wings; it is necessary to provide much ground-floor space in order to accomplish the purposes of those branches of engineering which utilize heavy machinery. Adjacent to this building and under direction of one of the mechanical departments is located the ice plant.

The Textile Building.—The Textile Building is now occupied by the Department of Agricultural Engineering and the Model School. It is the purpose in the future to use the remaining space in this building for such other departments as it will accommodate. To the rear of this building will be found a 40x100 Traction Engine Laboratoy which is used and equipped by the Department of Agricultural Engineering.

The J. Z. George Infirmary.—This building, named in commemoration of Senator J. Z. George, to whom the institution is much indebted, is conveniently located for its purpose. It is at a proper distance from other college buildings and located for perfect drainage and hygenic conditions. It contains the office of the college surgeon, rooms for the staff of nurses, two general wards for ordinary cases and a number of private rooms for serious cases, which are fortunately few in number.

Young Men's Christian Association Building.—This has just been completed. It is a building not only of pleasing architecture but also of substantial proportions; the founda-

tion is built on concrete piers and beams, the whole resting on solid rock. The building is also fire-proof.

The interior is none the less pleasing than the exterior, and is in fitting accord with the work expected to be accomplished.

There has been a great need for such a building; it gives the opportunity for the student to spend a social hour under most congenial conditions; it gives an opportunity for enlarged Christian service.

The Dairy Building.—A building especially devoted to dairy purposes and equipped with ample facilities for instruction in dairying, and also with facilities for supplying milk and butter for student consumption, is located conveniently for its purposes. In it is handled the milk from the college dairy as well as that of the Co-operative Dairymen's Association, which in now producing over 500 pounds of butter daily.

The Laundry Building.—This is a brick building of modern type of construction, and provides adequate room for all students and campus laundry. The building is well equipped with modern machinery for laundry work, cleaning and pressing, and is operated for the exclusive benefit of the student body and campus people.

Veterinary Infirmary.—This building is devoted to the treatment and care of sick stock with ample space for clinic work and for the manufacture of hog cholera serum. A crematory is in connection with this building, where all refuse is burned.

Athletic Building and Grounds.—The Athletic Association has erected grand stand and bleachers with all conveniences, such as shower baths, individual lockers, and toilet room, at Hardy Field. The new athletic track on the west side of the campus has just been completed and furnishes ample accommodation for all track work and kindred sports.

Poultry Department.—A group of suitable buildings is occupied by the poultry department. Included in this group are a tool room, packing sheds, fowl houses, brooders, and other necessary buildings.

Barns.—Separate and sufficient barns are provided for properly housing the large amount of stock owned by the departments of the institution. The largest barns are under the control of the departments of dairy husbandry, animal husbandry, and he experiment station.

The horticultural department also has ample barn facilities.

Horticultural Green Houses.—A group of suitable building is occupied by the departments of horticulture. Included in this group are tool rooms, packing sheds, cold frames, hot houses, and other necessary buildings.

Bacteriological and Entomological Buildings.—This group of buildings belong to the experiment station, and consist of an office building, a green house, and a wire screen house, used by the entomologist. The office building is equipped with a dark room and a small chemical and bacteriological laboratory. On the surrounding plots of ground a hundred cylinders are located for experimental work.

Agricultural Demonstration Plats.—Among the most interesting and instructive agricultural education factors we have is the demonstration fiield. These plats in this field are occupied by various grasses, legumes, grain, fiber, and other field and forage crops. Practically every variety of economic plants is to be found in these fields.

Some annual, biennial, and perennial crops may be seen here all the year around, with which students become thoroughly familiar. They plant the seed, cultivate the plant and harvest the product.

Silos and Feeding Sheds.—The mess hall cattle department has concrete silos and feeding sheds and pens for fattening beef cattle which provides ample facilities for furnishing the highest quality of beef.

BOARDING DEPARTMENT.

A. P. LUSK, Steward.

The Mess Hall is, as it has always been, the most poplar resort on the campus. It has been the constant endeavor to give to the students not only an improved menu of the best the

markets afford, but to do this at the lowest possible cost. Milk, butter and meats are all produced on the college farms, and in quality cannot be excelled.

Much money has been expended in improvements, such as kitchen equipment, cold storage, etc., thus giving superior facilities for the preparation of food, and the sterilization of all vessels and table ware. The most pressing need now is ample storage space for the proper care and preservation of general supplies. All supplies are purchased upon competitive bids by the secretary and purchasing agent.

Recently it was decided to install student waiters in the Mess Hall, and the experiment gives promise of good results. This change has been made, not only in the hope of bringing about greater efficiency and cleanliness, but also with a desire to assist those boys who otherwise would not be able to attend school.

HEALTH AND SANITATION.

The college is situated in one of the most healthful sections of the state. The campus is 422 feet above sea level. In addition to its natural location and excellent drainage it has a complete system of sewerage, and a magnificent water supply furnished by two artesian wells over a thousand feet deep.

The facilities for caring for the sick are of the very best. The infirmary is splendidly equipped. The college surgeon devotes his entire time to the students, and trained nurses are on duty day and night. As a consequence of these advantages there is comparatively little serious illness among the students.

RELIGIOUS EXERCISES.

There is a tri-weekly prayer and song service in the chapel —faculty and students being required to be present. On Sunday morning students may attend any church in the town of Starkville.

Every Sunday morning religious services are held in the Chapel, at which all students must be present. These services

are conducted in turn by the pastors of the different churches in the town of Starkville and vicinity.

YOUNG MEN'S CHRISTIAN ASSOCIATION.

The association, standing as it does for the all round man, emphasizes those features that help to build the mind, body, and spirit; so that, in addition to the religious phases of our work, the physical, mental and social aspects of college life are given particular attention, and several pleasant receptions and socials have been given.

The regular prayer meeting is held every Wednesday night, and this is truly the students' meeting. They have charge of the devotional exercises, and they make it a time of sweet fellowship.

The regular weekly service is held Sunday evening, and the very best speakers available are invited to speak, so that the students listen to outstanding men of the various professions who deliver a message that is not only helpful to-day, but of great benefit for the morrow.

The College Sunday School is progressing and is very helpful to many young men who do not attend the town schools. In addition to the school, there are two Bible Study classes that are well attended.

A greater number than former years signed for the mission study classes, the courses offered being very pertinent to the great questions of the day. The extension committee has been of great service this year; a number of country Sunday Schools and Churches have been visited, and this phase of the work promises to be of extreme value to the rural communities surrounding the college. In this community work the students gain valuable knowledge, that will be of great service in future life.

The hand-book that is issued by the Association at the beginning of each session presents the various phases of college life and gives useful information to the new student.

A general secretary is employed who devotes the whole of his time to Association work, and the Secretary asks the pastors, teachers, superintendents, friends and relatives, that

they correspond freely with him, especially regarding the new student, so that they can be brought in contact with the Association at the earliest possible moment.

The student should transfer his church letter to the church of his denomination in the town of Starkville; he will feel closer to the church if he does; he can of course be re-transferred when he returns home.

Again we express our appreciation to the friends who made the Association Building possible, and to all who are interested, the surprise is, how we ever got along without such a building.

The swimming pool has not yet been installed, but we are looking forward to the construction of this needed feature during the coming year.

Owing to this catalogue being printed earlier than usual, the officers of the Association for the next year cannot be published as the date of election is later than the time of going to press.

LITERARY SOCIETIES.

The two literary societies, the Dialectic and the Philotechnic, are a valuable supplement to the College. Their exercises, which consist of debates, declamations, and talks on industrial and social subjects, give the students some practical knowledge of parliamentary usage and some skill in argumentative tactics, and develop in some measure that readiness essential to the agricultural, engineering, educational, or public leader.

The students manifest a good deal of interest in the societies; more than a hundred are members. Their meetings, always open to visitors, are held on Friday evenings. To promote debating, business speaking, and oratory, each society has established a small library which will develop as means allow. To the same end each society annually gives a medal to the freshman or sub-freshman member who excels in declamation, and another to the sophomore member who delivers the best original debate.

THE DEMOSTHENEAN DEBATING CLUB.

The Demosthenean Debating Club is an upper classman's literary society. It is composed of a possible twenty-two members—fourteen seniors and eight juniors. These men, who have shown proficiency in the Philotechnic and Dialectic societies, do much to promote oratory and practical speaking in the student body, and take an active part both in local and intercollegiate contests.

INTERCOLLEGIATE DEBATING AND ORATORICAL CONTESTS.

Intercollegiate debates are now held with the Alabama Polytechnic Institute, the University of Mississippi, and the State Normal, and with Clarke Memorial, Mississippi, and Millsaps Colleges. Interest in debate, which has developed among the students primarily during the past three years, is growing rapidly. Recognizing that training in incisive reasoning, self-possession, and persuasion is necessary to the agricultural, the engineering, and the business leader, the College, through the Department of Public Discourse, encourages intercollegiate debating and oratory.

The style of debate employed is the so-called "head-on." This is far different from the old style set delivery; it requires thorough preparation; quick-wittedness; ability to debate extemporaneously, to answer the unexpected question and to make the truth-revealing sortie. It is the style essential to the industrial leader; the farm-demonstrator, the practical teacher, the efficient engineer, the commanding business man.

The students also show considerable interest in the Mississippi Intercollegiate and the Mississippi Chautauqua oratorical contests. These contests are participated in by representatives of the A. and M., Millsaps, and Mississippi colleges, the State Normal, and the University. The successful orator in each contest receives a handsome gold medal.

RULES GOVERNING STUDENT CONTESTS.

(Not Athletic)

Students interested in any intercollegiate or local speaking contest should apply to the Department of Public Discourse for information. Copies of the rules governing each of the following contests are available:

Debating.—Philotechnic, Dialectic, Alumni, Millsaps, Mississippi College, Auburn, Clarke, Moorhead (between sophomores of A. and M. and Millsaps), and University.

Oratorical.—Chautauqua, T. L. Mellen (Preliminary to Intercollegiate), and Mississippi Intercollegiate.

Vocational.—Albert Critz Memorial.

MEDALS AND PRIZES.

Declamation.—Each of the literary societies—the Dialectic and the Philotechnic—gives annually a gold medal to the freshman or sub-freshman member who declaims best.

Sophomore Debate.—Each literary society also gives a medal to the sophomore member who prepares and delivers the best argument.

Alumni Debate.—The Alumni Association gives a gold medal each year to the member of the junior class who delivers most effectively the best composed argument. The debate, which takes place during Commencement, is restricted to regular members of the Dialectic and Philotechnic literary societies.

Albert Critz Memorial in Vocational Speaking.—In memory of his brother, Albert Critz, of the class of 1913, Professor Hugh Critz, annually confers a handsome gold medal on the member of the graduating class who delivers most effectively the best original speech on a vocational subject. The subject should be drawn from that province—agriculture, business, education, general science, or engineering—in which the student will do his life work.

The T. L. Mellen Contest in Oratory.—In memory of his father, Prof. F. D. Mellen each year gives to the junior or senior

who excels in oratory a gold medal of classic design. The winner of the T. L. Mellen contest, which takes place at the close of the first, or fall, term, represents the College in the Mississippi Intercollegiate Oratorical contest in the following May.

Magruder Essay Contest.—For the best written critique of an English or American classic, by a regular sophomore, Prof. F. J. Weddell offers annually a beautiful gold medal. This prize is given in remembrance of Dr. W. H. Magruder, late head of the Department of English, who for thirty years gave a medal, identical with the present medal in design, to the sophomore who prepared the best paper in argumentation.

THE COLLEGE REFLECTOR.

The College Reflector, published by the student body, is a weekly newspaper devoted to matters of current interest to residents of the Campus and to their friends and affording practice to students interested in journalism. Intercollegiate debates, literary society meetings, Y. M. C. A. meetings, social events, athletic contests, and similar College activities receive notice in its columns. Though a newspaper primarily for student development, **The Reflector** gives liberal space to announcements by college departments, to public lectures by members of the faculty and by others, to orations by students, and to unbiased reports on current questions.

The price is one dollar for the scholastic year. Sample copies are sent free to any address. All communications should be addressed to Business Manager, **College Reflector,** Agricultural College, Mississippi.

LIBRARY.

WHITMAN DAVIS, Librarian.
LAURA HALL, Assistant Librarian.

The Library is located on the second floor of Montgomery Hall, which is southwest of the main dormitory. The building is heated by steam and lighted by electricity from the central power plant. The part of the building occupied by the Li-

brary is oval-shaped with one main floor used for general reading and reference room and two galleries for the book-stacks. For the convenience of the readers tables are placed between the stacks. The Library is supported by student fees, which are paid at the beginning of the session.

There are 26,581 volumes on the shelves, 4,100 volumes of which are uncatalogued public documents. There are 73,581 unbound periodicals, 38,909 duplicates, and several thousand bulletins and pamphlets. As soon as pamphlets are bound, they are placed on the shelves with the books.

The Library is a public depository for government publications and receive copies everything that is sent out free. The Library is classified according to the Dewey Decimal System, and the books are catalogued in the usual manner. Library of Congress cards are used when obtainable. The open shelf system is maintained because it is believed that contact with books in itself is educative. There are 116 paid subscriptions to periodicals, besides 150 others that are sent gratis by the publishers. The Library is a depository for publication of the Carnegie Institution of Washington and the Rockefeller Institute for Medical Research.

The reference department is being strengthened each year. This department is recognized as being the most important in the Library, and no efforts are spared to make it what it should be. In it are to be found the leading encyclopedias, dictionaries, hand-books, guide-books, indexes, and ordinary books of reference, and bound sets of North American Review, Science, Chautauquan, Educational Review, Education, Engineering News, Engineering Magazine, School Review, American Review of Reviews, Harper's Weekly, Harper's Magazine, Atlantic Monthly, Forum, Popular Science Monthly, Outlook, Arena, Living Age, Nation, Literary Digest, Political Science Quarterly, Library Journal, Public Libraries, English Historical Review, Country Life in America, American Homes and Gardens, Garden Magazine, World's Work, Scientific American, Scientific American Supplement, Pedagogical Seminary, Johns Hopkins University Studies in Political Science, Journal of American History, Southern Historical Association Publications, Southern Historical Papers, Confederate Veteran, Gulf States

Magazine. Sets of bulletins of the United States Department of Agriculture have been bound and are available for reference. The library receives and uses the printed cards for the publications of the Department of Agriculture.

During the past year the library has received a number of gifts of books and magazines, which are appreciated very much and acknowledgement of which is hereby made.

The Library is kept open almost every day in the year, being closed only on Christmas day.

There are about 10,000 volumes in the several departments of the college. These do not belong to the General Library and ar not included in this report.

ATHLETICS.

All athletic activities are under the control and direction of the Department of Physical Education. It is the aim of the department to provide instruction and to offer facilities for the student body to engage in such exercises, games, and sports as will best create and maintain a vigorous physical health. To that end every effort is made to encourage each student to engage in some form of athletics for exercise and recreation. Inter-class and department contests of all kinds are arranged so that large numbers may have an opportunity to engage in them. The annual series of class games in football, basketball, and baseball arouses equally as much interest as the inter-collegiate contests. The annual inter-class track meet in the spring is growing in size and interest every year.

Representative teams are maintained in football, baseball, basketball, and track. Inter-collegiate contests in the above sports are held every year with the leading Southern Colleges and universities under the regulations of the Southern Intercollgiate Athletic Association, of which Mississippi A. & M. is a member. To engage in intercollegiate athletics a student must pursue one of the regular college courses and maintain a satisfactory standing in his class work. Failure to pass in his work in any term will prevent him from engaging in intercollegiate athletics the following term. It is the aim of the department to foster a spirit of fair play and true sportsman-

ship in all athletic contests and to make the winning of games a subordinate matter.

Two large athletic fields, equipped for football and baseball, a first-class quarter-mile cinder track, and a large number of tennis and basket ball courts are maintained by the department and offer unusually good opportunities for the student body to engage in outdoor athletic sports.

A temporary gymnasium has been fitted up in the old Y. M. C. A. building, which is conveniently located near the dormitories. It has a fairly good equipment of gymnastic apparatus. For those who are not physically fitted to engage in athletic sports, a number of courses are offered, which are planned especially for the upbuilding of the body and the improvement of the general health.

SCHOOL OF AGRICULTURE.

FACULTY.

HON. GEORGE R. HIGHTOWER, B. Sc., President of the College.
J. C. ROBERT, V. M. D., Ph. G., M. D., M. S. A., Director of the School of Agriculture and Professor of Agronomy.
H. CRITZ, B. Sc.....Registrar.
W. F. HAND, M. Sc., Ph. D.....Professor of Chemistry.
J. S. MOORE, M. Sc.....Professor of Dairy Husbandry.
A. B. McKAY, M. Sc.....Professor of Horticulture.
R. W. HARNED, B. S. A.,.....Professor of Zoology.
E. R. LLOYD, M. Sc.....Director of the Experiment Station.
D. SCOATES, B. S.....Professor of Agricultural Engineering.
E. M. RANCK, V. M. D.....Professor of Veterinary Medicine.
E. C. BARNETT, V. M. D.....Professor of Animal Husbandry.
T. J. BROOKS.....Professor of Markets and Rural Economics.
C. F. BRISCOE, Ph. D.....Professor of Bacteriology.
E. P. CLAYTON.....Professor of Poultry Husbandry.
J. M. BEAL, B. S., M. Sc.....Professor of Botany and Forestry.
H. J. SMITH, B. Sc.....Associate Professor Chemistry.
C. B. HADDON, B. Sc.....Associate Professor of Animal Husbandry.
J. T. WEST, B. S. A.....Associate in Agronomy.
G. G. SNOW, M. Sc.....Assistant in Agronomy.
A. D. SUTTLE, B. S. A.....Instructor in Agronomy.
W. H. NELSON.....Instructor in Cotton Classing.
C. E. WILSON, B. A., M. A.....Instructor in Zoology.
H. H. HARNED, B. Sc., M. Sc.....Instructor in Bacteriology.
W. B. TISDALE, B. Sc.....Instructor in Botany and Forestry.
R. K. LLOYDE, B. Sc.....Instructor in Horticulture.
C. LEAKE.....Instructor in Manual Training.
J. W. CARPENTER, B. Sc.....Instructor in Agricultural Engineering.
W. B. MONTGOMERY, B. Sc.....Instructor in Manual Training.
E. P. GULLEDGE, B. S. A.....Instructor in Dairying.
B. M. WALKER, M. Sc., Ph. D.....Professor of Mathematics.
J. C. HERBERT, M. Sc.....Professor of History and Civics.
W. N. LOGAN, Ph., D.....Professor of Geology and Mining Engineering.
J. V. BOWEN, Ph. B.....Professor of Modern Languages.
W. D. CHADWICK, A. B. A. M.....Physical Director.
R. W. GAY, B. Sc., C. E.....Professor of Civil Engineering and Drawing.
R. C. CARPENTER, B. Sc.....Professor of Mechanical Engineering.
F. J. WEDDELL, B. Sc.....Professor of English.
F. D. MELLEN, A. B., M. Sc.....Professor of Public Discourse.

LOUIS FARRELL, First Lieutenant, U. S. Army, Unassigned, Professor of Military Science and Tactics, and Commandant of Students.
W. H. MOODY, A. B., Ph. D.....Professor of Physics.
B. J. MARSHALL, M. D.....Professor of Hygiene and Sanitation.
C. R. STARK, B. Sc.....Associate Professor of Mathematics.
M. D. BROADFOOT.....Associate Professor of Mechanical Engineering.
M. L. FREEMAN, M. Sc.....Associate Professor of Drawing.
A. W. GARNER, B. Sc., Ph. M.....Associate Professor of History.
J. S. WALLACE, B. Sc.....Assistant Professor of Mathematics.
H. D. McMURTRAY, B. Sc.....Assistant Professor of Physics.
E. S. TOWLES, B. A., M. A.....Instructor in English.
A. H. SHANNON, A. B., M. A.....Instructor in English.
S. WRIGHT, B. Sc.....Instructor in Mathematics.
F. P. GAINES, A. B., A. M.....Instructor in English.
F. C. BREWER, A. B.....Instructor in English.
J. E. ROBERTSON, B. C. E.....Instructor in Civil Engineering.
F. J. GRAY, B. Sc.....Instructor in Chemistry.
F. A. THOMAS, B. Sc.....Instructor in Geology.
H. SOLOMON, B. Sc.....Instructor in Chemistry.
J. R. McLAVY, B. Sc.....Instructor in Chemistry.
J. M. COLEMAN, B. Sc.....Instructor in Chemistry.
H. G. GRANTHAM, B. Sc.....Fellow in Bacteriology.
E. R. RANEY, B. Sc.....Fellow in Agricultural Engineering.
W. E. VERNON, B. Sc.....Fellow in Agricultural Engineering.
F. F. BIBBY, B. Sc.....Fellow in Zoology.
G. F. ARNOLD, B. Sc.....Fellow in Zoology.
W. GERNON, B. Sc.....Fellow in Dairying.
C. G. STEELE, B. Sc.....Fellow in Horticulture.

Agriculture is the basis of all true prosperity, and education is the foundation upon which its superstructure must be reared to success. Eighty-eight per cent of the population of Mississippi is engaged in farming, hence agricultural instruction is one of the most important and popular departments of our educational system. The successful farmer produces the maximum quantity and highest quality of agricultural produce per acre at a minimum cost.

A man may become a good farmer by practical experience. This, however, without theoretical instruction, is at best an expensive method of obtaining agricultural information. The School of Agriculture offers its students a general education along industrial lines, through instruction in technical agricultural sciences, and, as far as possible, the practical application of these sciences to farm life. Laboratory, greenhouse,

and field instruction supplement class-room work. The technical subjects taught are those bearing upon natural laws which underlie the phenomena of plant and animal life.

The School of Agriculture offers five courses:

1. Four-year course in agriculture, leading to the degree of Bachelor of Science.

2. Two-year course in agriculture, for the completion of which a certificate is awarded.

3. Correspondence course in agriculture, especially adapted to farmers and public school teachers.

4. Farmers' short course in agriculture. (Summer term.)

5. Graduate Course in Agriculture, for the completion of which the degree Master of Science in Agriculture (M. S. A.) is given.

FOUR-YEAR COURSE IN AGRICULTURE.

The work outlined in this course is given by the following thirteen departments which comprise the School of Agriculture: (1) Agronomy; (2) Animal Husbandry; (3) Agricultural Engineering; (4) Bacteriology; (5) Botany and Forestry; (6) Chemistry; (7) Dairy Husbandry; (8) Farm Management; (9) Horticulture; (10) Markets and Rural Economics; (11) Poultry; (12) Veterinary Science, and (13) Zoology and Entomology.

The same course of study is given all the students in the School of Agriculture until the end of the first term senior year. The entire second and third terms (senior year) are devoted to special work in the different departments of the school. The student at the beginning of the second term (senior year) elects one of the thirteen departments of the school for special work. The student, under the direction of the head of the department, makes out his schedule for the remaining two terms of his college work. A minimum amount of twenty course hours of work is required per week. The departments teaching those subjects most closely related to the student's elective course are selected for these two terms' work.

TWO-YEAR COURSE IN AGRICULTURE.

This course is designed to give, as far as possible, a working knowledge of the principles of agricultural science and practice to the young men who wish to become practical farmers and stock-men, and who cannot devote time to the high school branches and to other college training. Only a small per cent of the students who enter college can take a full course; a large per cent leave after one year's work, and not more than two out of ten who enter, graduate. Many of the men who leave college return to the farm, where they spend the rest of their lives. They are the men who most need agricultural training. They have as great need and as clear title to vocational instruction as has any other class of students in our state's system of education.

Agricultural instruction given the two year students includes courses in Agronomy, Animal Husbandry, Dairy Husbandry, Entomology, Agricultural Botany, Farm Machines, Forge Shop, Farm Management, Veterinary, Science, Markets and Rural Economics, Farm Chemistry, Gas Engines, Bacteriology, Farm Mathematics, and Business Methods. The work thus outlined is of a more elementary nature than that of the four-year course. Students spend the forenoon in the class-room and the afternoon under direct supervision of the professors in the demonstration field plats, experiment fields, greenhouses, gardens, laboratories, dairy, and with the different breeds of horses, beef cattle, dairy cattle, poultry, hogs, and other improved live stock. In this manner the fields and barns become laboratories of extensive and most practical investigation and observation.

There are in Mississippi many deserving farmers and young men of more mature years than the average student who should take this course. They find it inexpedient to take the four-year course, but desire to increase their efficiency on the farm. The magnificent facilities of the college for practical instruction along agricultural lines are rarely duplicated.

Every student is urged to complete the four-year course in agriculture, when possible to do so.

ADMISSION TO THE TWO-YEAR COURSE IN AGRICULTURE.

Requirements for admission are that the student must be at least eighteen years of age, and have sufficient preparation to pursue the assigned work satisfactorily.

Certificate of Proficiency.—Upon successfully completing the two-year course in agriculture, a certificate of proficiency is granted. The course does not, however, lead to a degree. The object of the course is to give, in the shortest, most direct way possible, definite, specific information that will be of immediate value on the farm. For course of instruction, see "Requirements for Certificate of Proficiency in Two-year Course in Agriculture." Students who enter the four years' course after completing the two-years' course, will be granted advanced standing in such agricultural studies as is warranted by the extent and efficiency of work done in the respective departments.

REQUIREMENTS FOR CERTIFICATES OF PROFICIENCY IN TWO-YEAR COURSE IN AGRICULTURE.

FIRST YEAR.

Subject:	Hours per week.		
	1 T	2 T	3 T
Agronomy, 17, 18	3-2		3-2
Business Methods	6-0	6-0	6-0
Farm Mathematics, 13	3-0	3-0	3-0
Veterinary Medicine		3-2	
Entomology, 10	3-4		
Botany and Forestry, 22		3-4	
Farm Machines, 9			3-4
Animal Husbandry, 16		3-2	
Mechanical Engineering, 28	0-4		
Dairying, 10			3-2
Markets, 1			3-0
Military Science, 3	0-2	0-2	0-2
Poultry, 3	3-2		
Bacteriology, 6		4-2	

SECOND YEAR.

Agronomy, 16, 21, 2	4-2	3-2	4-2
Farm Chemistry, 18	4-4		
Animal Husbandry, 17, 18	4-2		3-2
Dairying, 11		3-2	
Farm Mathematics	3-0	3-0	

Surveying, 14			3-4
Farm Management		3-2	3-2
Horticulture, 40			3-2
Mechanical Engineering, 14		0-4	
Military Science, 3	0-2	0-2	0-2
English	5-0	5-0	5-0

CORRESPONDENCE COURSE IN AGRICULTURE.

This course is designed to give in a brief but comprehensive manner a summary of the best thought along agricultural lines. Systematic study at home, under the direction of heads of the college departments, may accomplish much of practical value. There are in Mississippi a great number of men unable to attend college who are anxious for an opportunity to better prepare themselves for work along industrial lines. They have as great a need of state aid as the more fortunate young men who attend this institution. This course represents an effort of the college to be of service to those who, for various reasons, cannot attend this school. Teaching by correspondence offers some disadvantages, but on the other hand, the instruction is individual, and each student must do the work for himself. In the latter manner he solves many difficulties and may receive greater benefit from the work thus done. A number of our departments are offering correspondence courses.

REGISTRATION FOR THE CORRESPONDENCE COURSE IN AGRICULTURE.

This course is offered free of cost to any person in Mississippi interested in the subjects herewith presented, and who will study and complete in a creditable manner the work elected. No one will be allowed to pursue more than two courses at a time. Any one desiring to take this work should write the Director of the School of Agriculture, and designate the courses he wishes to study. If you are undecided as to which of the courses are best suited to your needs, correspond with us concerning the work, before you register. After registering in this school, each student is placed under direction of the head of the department in which the work is taken. Instruct-

ion will be given as to the books, pamphlets, bulletins, magazines, or other agricultural literature to be secured, and from time to time, detailed instruction will be given by letter as to systematic study, examinations, and other work for each course elected. Examination questions will be furnished with each course elected and will be a guide as to important practical points to be studied in the text. When the course is completed examination questions will be sent to the student. Examination papers will be carefully graded by the department and returned to the student.

CORRESPONDENCE COURSES OFFERED.

The following Departments are offering Correspondence Courses in Agriculture:

OUTLINE OF COURSES.

AGRONOMY.

50. **Soils and Soil Fertility.**
51. **Farm Manures.**
52. **Preparation of the Seed Bed.**
53. **Clovers and Grasses.**
54. **Grain Crops.**
55. **Hays and Silage Crops.**

CHEMISTRY.

56. **Chemistry of Plant and Animal Life.**—This is an elementary course dealing with the chemistry of important plant and animal products, and relations in general of chemistry to plant and animal growth. Some knowledge of elementary chemistry is prerequisite.
57. **The Chemistry of Soils and Fertilizers.**—An elementary study of the chemical composition of soils, the chemistry of the fertilizer industry, and general discussion of the topics of soil and fertilizer chemistry.

ANIMAL HUSBANDRY.

58. **Breeds and Market Classes** of Cattle, Horses, Asses, Mules, Sheep, Goats and Hogs.
59. **The Principles of Feeding Farm Animals,** the Composition and Feeding Value of Stock Feeds, and the Making of Suitable Rations for Stock from Home Grown Feeds.
60. **The Principles of Successful Breeding and Improvement of Farm Animals.**

DAIRY HUSBANDRY.

61. **The Dairy Cow—**
    (a) The breeds of dairy cattle.

(b) Selection of breeds.
(c) Starting a herd.
(d) Care and management of a herd.
(e) Feeding a dairy cow.

62. **Care of Milk and Its Products—**
(a) The production of clean milk.
(b) Handling milk after milking.
(c) Methods of creaming.
(d) Ripening cream for butter making.
(e) Churning and marketing butter.
(f) Marketing milk and cream.

AGRICULTURAL ENGINEERING.

63. **Tile Drainage.**—This course embraces the design and installation of tile drains.

64. **Farm Machinery.**—This work includes a study of the various classes of farm machinery, and the conditions under which the same should be used.

65. **Gas Engines.**—This course includes a study of the construction and operation of gas engines.

ENTOMOLOGY.

66. **Elementary Insect Study.**—Instruction will be given in the collecting, rearing, mounting and identifying of insects found in the vicinity of each student. Assigned reading will be given in bulletins and at least one text-book will be used. Students will be expected to do considerable collecting and to make observations of the habits and life histories of insects.

67. **Economic Entomology—**
(a) Truck crop insects.
(b) Field crop insects.
(c) Fruit and orchard insects.
(d) Live stock insects.
(e) Household insects.

68. **Bee Culture.**—In order to take this course each student must have at least one hive of bees that can be kept under observation; however, the bees may be obtained after the course has begun. The work will consist largely of assigned readings in text-books and bulletins, making certain observations of bees in the hives, and following the practices of good bee keeping.

HORTICULTURE.

69. **The Home Garden.**
70. **The Home Orchard.**
71. **Commercial Horticulture, or Truck Gardening.**

VETERINARY SCIENCE.

72. **Care of Live Stock and Prevention of Disease.**
73. **Common Diseases of Farm Animals.**
74. **Contagious Diseases of Farm Animals.**
75. **The Treatment of Common Surgical Cases in Domestic Animals.**
76. **Vaccines and Antitoxins as Applied to Live Stock.**

POULTRY HUSBANDRY.

77. **Poultry Raising.**—This course will include the different breeds of poultry best suited for the production of eggs, broilers and fryers. Breeding, feeding and management of poultry will be studied in detail.

78. **Commercial Poultry Husbandry.**—This course should follow Number 77. It will include a study of poultry houses best suited to southern conditions, the use of brooders and incubators, economic poultry feeding, and the killing, dressing and marketing of poultry. Common diseases of fowls will be studied and best methods of their prevention and cure discussed.

HOME ECONOMICS.

This work is especially suited to housekeepers and teachers of domestic sciences.

79. **Foods and Cookery** (including baking, preserving, and canning).
80. **Household Arts** (including house furnishing, conveniences for the home, textiles, and plain sewing).

SUMMER TERM OR FARMER'S SHORT COURSE TERM IN AGRICULTURE AND DOMESTIC SCIENCE.

This course is designed to meet the needs of farmers, housewives, teachers and college students, by giving in the shortest possible time work that will be of practical value on the farm, at the home and in the school room. The work given by each department during this term may be found by referring to the courses of study of the various departments of this school. A separate catalogue may also be secured, describing the summer term's work, by addressing the registrar of the college.

The Summer term in Agriculture and Domestic Science is intended for the following students:

1. Public School teachers who desire to become more proficient in their profession.

2. Farmers who wish to pursue a systematic study of those subjects bearing on plant and animal life.

3. Students who desire to secure college credits and are otherwise employed during the fall, winter, and spring terms.

4. Agricultural and Science teachers in Agricultural High Schools.

5. College students desiring to make up back work.

6. Housekeepers who desire special instruction in Foods, Cookery and Household Arts.

7. College students who desire to shorten the period of their college attendance.

8. Teachers who wish to prepare for examinations for public and high school license.

9. Prospective students who need additional preparation for entrance to College.

10. High school teachers who wish to strengthen themselves in certain subjects.

11. Teachers of Household Economics.

12. Superintendents and principals of High Schools.

13. Graduate students who wish to secure advanced degrees.

14. Those who desire special instruction in cotton grading.

15. For demonstration agents who wish to better prepare themselves along such lines as Soil Management, Crops Production, and Animal Husbandry.

In the main, the Summer Term work is divided into two classes. First, popular courses of six weeks, more or less elementary in nature, particularly suited to public school teachers, farmers and housekeepers, for the successful completion of which a certificate will be awarded. Second, more technical discussions of Agricultural subjects, suited to high school teachers and college students. These are the same subjects offered during the previous college terms, for the successful completion of which college credits are given.

GRADUATE COURSE IN AGRICULTURE.

The requirement for the Master's degree is satisfactory work continued through thirty-six weeks' resident study. This requirement may be met by qualified graduate students in nine months devoted wholly to this work, or in four summer sessions, provided students pursuing this degree make satisfactory arrangements with the head of the department in which their Major work is taken to do each year three weeks' additional resident work.

We urge all qualified graduates to enter upon this work at the earliest possible time. They may begin this resident work during any college term.

EQUIPMENT.

The college owns and operates 2,270 acres of land. The different departments of the School of Agriculture are equipped

for their work. It is the aim of the School of Agriculture to show, as far as possible, the practical application of technical class-room instruction. To this end laboratories, the field demonstration plats, greenhouses, experimental plats, different breeds of horses, cattle, sheep, and swine, and the gardens and fields are made use of.

The State Experiment Station, with which our students are given every facility for becoming familiar, is doing valuable work for the farmers of the state.

ADMISSION.

Students elect work in the School of Agriculture when they enter college at the beginning of the freshman year. They should carefully consider this matter before making a decision, for the course pursued in college should, as far as possible, be in line with one's life work.

EXPENSES.

For expenses in the Agricultural School, see the heading, "Expense," elsewhere in this catalogue.

OPPORTUNITIES FOR GRADUATES.

Never before has progressive agriculture occupied such a prominent position with the reading, thinking public. Many of our graduates are employed, at splendid salaries, by private individuals, state and federal governments, railroads, land companies, and like corporations, on account of their technical agricultural training. Many are teaching and directing the work of agricultural high schools in Mississippi and other states. The course of instruction received here prepares the student for a life of usefulness along agricultural lines.

SCHOOL OF ENGINEERING.

FACULTY.

HON. GEORGE R. HIGHTOWER, B. Sc.....President of the College.
B. M. WALKER, M. Sc., Ph. D., Vice-President, Director, and Professor of Mathematics.
W. N. LOGAN, A. M., Ph. D., Professor of Geology and Mining Engineering.
R. W. GAY, B. S., C. E.....Professor of Civil Engineering and Drawing.
L. L. PATTERSON, A. B., A. M., M. E., Professor of Electrical Engineering.
R. C. CARPENTER, B. Sc.....Professor of Mechanical Engineering.
H. W. MOODY, A. B., Ph. D.....Professor of Physics.
C. R. STARK, B. Sc.....Associate Professor of Mathematics.
M. L. FREEMAN, M. Sc.....Associate Professor of Drawing.
M. D. BROADFOOT, B. Sc.....Associate Professor of Mechanic Arts.
J. S. WALLACE, B. Sc.....Assistant Professor of Mathematics.
H. FOX, B. Sc.....Assistant Professor of Mechanical Engineering.
H. D. McMURTRAY, B. Sc.....Instructor in Physics.
STANLEY WRIGHT, B. A.....Instructor in Mathematics.
CARL LEAKE.....Instructor in Wood-Shop.
*LOUIS ROARK, B. A.....Instructor in Geology.
J. E. ROBERTSON, B. C. E.....Instructor in Civil Engineering.
W A. GILES.....Instructor in Machine Shop.
W. B. MONTGOMERY, B. Sc.....Instructor in Wood-Shop.
*C. P. CROWE.....Instructor in Forge and Foundry.
J. B. PETERSON, B. Sc.....Instructor in Electrical Engineering.
E. L. LUCAS, B. Sc.....Instructor in Forge and Foundry.
F. D. THOMAS, B. Sc.....Fellow in Geology and Mining Engineering.
J. C. HERBERT, M. Sc.....Professor History and Civics.
W. F. HAND, M. Sc., Ph. D.....Professor of Chemistry.
F. J. WEDDELL, B. Sc.....Professor of English.
F. D. MELLEN, A. B., M. Sc.....Professor of Public Discourse.
LOUIS FARRELL, First Lieutenant Infantry, U. S. Army, Professor of Military Science and Tactics.
H. J. SMITH, B. Sc.....Associate Professor of Chemistry.
A. W. GARNER, B. Sc., Ph M.....Associate Professor of History.
E. S. TOWLES, M. A.....Associate Professor of English.
A. M. MAXWELL.....Instructor in Bookkeeping.
F. P. GAINES, B. A., M. A.....Instructor in English.
A. H. SHANNON, A. B., M. A., B. D.....Instructor in English.
A. B. BUTTS, B. Sc., M. Sc., M. A.....Instructor in English.
F. C. BREWER, B. S., A. B.....Instructor in English.
G. GUYTON, B. Sc.....Instructor in History.

*Resigned.

The School of Engineering comprises the departments of Mathematics, Mechanical Engineering, Physics, Electrical Engineering, Civil Engineering and Drawing, Geology, and Mining Engineering.

It offers in each of the great divisions of engineering—mechanical, electrical, civil, and mining—a thorough course of instruction in the scientific principles and an introduction to the practice of the profession. The work is mainly technical, requires preparation of a high order, and exhaustive effort in the courses themselves. Each course requires four years for completion and leads to the degree of Bachelor of Science.

The work of the freshman and sophomore years is common to all students of this School, so that a choice between the different courses need not be made until the beginning of the junior year. The general objects of the several courses are, briefly, as follows:

The course in mechanical engineering is designed to train the student in those technical and scientific subjects in which the engineer must be well grounded, and to afford the student an opportunity to specalize in the direction of the mechanical engineering profession. Special stress is laid upon the preparation of the necessary working drawings, the manual training work in the wood shop, the work in the forge, foundry, and machine shops, and upon familiarity with the operations of power and electric light plants, the construction of power systems, and original research work in the mechanical laboratory.

The course in electrical engineering is designed to train the student in those fundamental principles of mechanics and electricity which form the basis on which the engineer must build, and to afford the student an opportunity for specialization in the electrical engineering profession. These students take the regular practical courses and shop work with the mechanical engineers and have special stress laid on a familiarity with power and light plants, the operation of direct and alternating current incandescent, arc, and power systems; the principles of alternating currents and machinery, the installation of electric light systems, power use and transmission, and original research work in the electrical laboratory.

The course in civil and mining engineering has for its object to impart as broad a scientific training as the length of the course and the essential studies will allow, and to afford the student an opportunity to specialize along some line in civil and mining engineering. Strict emphasis is laid on work in surveying, geology, and field methods which is so valuable to young engineers; mechanics and its applications to the designs of roofs and bridges and other structures; railway engineering, railway location and construction, masonry construction and foundation, bridge designs, water supply, and sanitary engineering.

In each of these courses a great deal of time is required for the practical work in the field, shops, and laboratories; but every engineer knows and appreciates full well the benefit of this training and experience. It is our aim to train our students to be independent and efficient workers and to adopt the methods of professional engineers. All engineering students are advised to spend their vacations in factories, repair shops, power, and electric light plants, and with engineering corps in the field, in order to obtain commercial experience, that they may better appreciate the relations of their technical training and actual work.

In addition to the technical training, all engineering students receive instruction in English, Chemistry, History, Civics, Political Economy, and Military Science and Tactics.

Special Courses.—Special courses are arranged in the School of Engineering to accommodate persons of mature years who desire to pursue some special line of engineering work without becoming a candidate for a degree.

Graduate Courses.—Advanced courses, open to graduates only, are offered by the several departments in the School of Engineering.

EQUIPMENT.

The wood shop, forge shop, foundry, and machine shop are equipped with tools and machines of modern type; the laboratories in the departments of mechanical engineering, electrical engineering, and geology and mining engineering are being

equipped with apparatus and machinery of modern pattern from the best makers; and the instruments in the department of civil engineering comprise transits, levels, compasses, rods, chains, tapes, plane tables, and other minor instruments.

ADMISSION.

The same rules apply in regard to admission to the School of Engineering as apply for admission to the college and are given elsewhere in the catalogue.

EXPENSES.

The expenses of students in the School of Engineering are the regular college expenses and are given under that heading in the catalogue.

ENGINEERING CLUB.

The students in the School of Engineering have organized a club which is known as the Mississippi Association of Student Engineers. The object of the Association is to promote interest in, and increase our knowledge of, the science of engineering.

SCHOOL OF INDUSTRIAL EDUCATION.

FACULTY.

HON. GEORGE R. HIGHTOWER, B. Sc.....President of the College.
B. M. WALKER, M. Sc., Ph. D., Vice-President and Professor of Mathematics.
HUGH CRITZ, B. Sc., Director of School of Industrial Education, and Registrar.
J. V. BOWEN, Ph. B., Professor of Modern Languages and Head of Divisions of Business Administration and Public Affairs.
G. H. BRUNSON, A. B., A. M., Professor of Philosophy and Sociology, and Head of Division of Education.
F. D. MELLEN, A. B., M. Sc.....Professor of Public Discourse.
G. T. HOWERTON.....Associate Professor of Business Practice.
KIMBLE HARMON, B. S.....Instructor in English.
C. L. McNIEL.....Instructor in Mathematics.
MISS ADA JOYCE FOSTER.....Teacher in Primary Observation School.
J. C. HERBERT, M. Sc.....Professor of History and Civics.
W. F. HAND, M. Sc., Ph. D.....Professor of Chemistry.
J. S. MOORE, M. Sc.....Professor of Dairy Husbandry.
A. B. McKAY, M. Sc.....Professor of Horticulture.
B. J. MARSHALL, M. D.....Professor of Anatomy and Physiology.
R. W. HARNED, B. S. A.....Professor of Zoology.
W. D. CHADWICK, A. B., A. M., Professor of Physical Education and Director of Athletics.
R W. GAY, B. S., C. E.....Professor of Civil Engineering and Drawing.
DANIELS SCOATES, B. S.....Professor of Agricultural Engineering.
H. W. MOODY, Ph. D.....Professor of Physics.
LOUIS FARRELL, First Lieutenant, U. S. A., unassigned, Professor of Military Science and Tactics, and Commandant of Students.
J. C. ROBERT, M. D., V. M. D.....Professor of Agronomy.
R. C. CARPENTER, B. Sc.....Professor of Mechanical Engineering.
T. J. BROOKS.....Professor of Markets and Rural Economics.
F. J. WEDDELL, B. Sc.....Professor of English.
E. BARNETT.....Professor of Animal Husbandry.
J. M. BEAL, B. S.....Professor of Botany.
C. R. STARK, B. Sc.....Associate Professor of Mathematics.
M. L. FREEMAN, M. Sc.....Associate Professor of Drawing.
A. W. GARNER, B. Sc., Ph. M.....Associate Professor of History and Civics.
H. J. SMITH, B. Sc.....Associate Professor of Chemistry.
E. S. TOWLES, B. A., M. A.....Associate Professor of English.
M. D. BROADFOOT, B. Sc.....Associate Professor of Mechanic Arts.
J. S. WALLACE, B. Sc.....Assistant Professor of Mathematics.

H. D. McMURTRAY, B. Sc.....Assistant Professor of Physics.
F. P. GAINES, A. B., M. A.....Assistant Professor of English.
STANLEY WRIGHT, B. A.....Instructor in Mathematics.
A. W. SHANNON, A. B., A. M.....Instructor in English.
CARL LEAKE.....Instructor in Manual Training.
W. B. TISDALE.....Assistant Professor in Botany.
G. G. SNOW.....Assistant in Agronomy.
J. E. ROBERTSON, B. C. E.....Instructor in Drawing.
F. C. BREWER, B. A.....Instructor in English.
R. D. JACOBS, B. Sc.....Instructor in History.
W. A. GILES.....Instructor in Machine Shop.
E. L. LUCAS.....Instructor in Forge and Foundry.

PURPOSE AND PLAN OF ORGANIZATION.

The purpose of the School of Industrial Education is the training of teachers. Special emphasis is laid upon Pedagogy, Agriculture, and Manual Training. The following courses are offered:

The Four Years' Course.
The Industrial Course (A and B.)
The Teachers' Short Spring Course.
These courses are described as follows:

THE FOUR YEARS' COURSE.

The four years' course is adapted to the needs of the average boy who comes to the college with only so much of previous training as will enable him to enter the regular freshman class. Teachers and others who wish to take advantage of the instruction offered here may enter at any time with such advanced standing as their previous preparation, shown by examination, or certificate from a reputable school, may warrant.

The work of the freshman year is common to all students of this school who expect to be teachers of manual training, of school garden work, etc., and a choice is not made until the beginning of the sophomore year.

The course in mechanic arts is designed to train the student in those technical and scientific subjects in which the teacher of manual training is expected to be well prepared.

The course in agriculture is designed to train the student in those fundamental principles of agriculture which form the

basis on which the teacher in school garden work, in landscape gardening, in beautifying the home and school grounds, etc. must build.

Instruction and training in both these courses are designed to furnish liberal culture in Language, History, Science, and Mathematics, together with the broadest possible professional knowledge within the limits set.

The objective toward which this course is planned is preparation for efficient service in vocational and industrial training schools, such as the agricultural high school, vocational training departments in town and city schools, and in consolidated rural schools. The richness of the course in social sciences, it is believed, will furnish admirable preparation for the study of law, and journalism, as well as other forms of community service.

Industrial Education students receive instruction in the following departments not directly connected with the School of Industrial Education: English, Mathematics, History, Political Science, Chemistry, Physics, Botany, Animal Husbandry, Agronomy, Dairying, Horticulture, Agricultural Engineering, Manual Training, Mechanical Engineering, and Drawing. The Department of Modern Languages offers a two years' course in French, Spanish and German, respectively, students being allowed to take their choice of the three. The department of Philosophy and Sociology offers, in addition to Pedagogy, the following courses: Psychology, History of Education, Logic, Ethics, Sociology, and Mississippi School Conditions.

A department of Public Discourse has been established in the School of Industrial Education with a view to training young men for efficiency in public speech and effective writing for the press.

For the arrangement of courses according to year and term, see "Requirements for Bachelor of Science Degree" in Industrial Education, page—.

INDUSTRIAL COURSE.

Division A.

This course is given for young men who, for one reason or another, have been denied the advantages of good school facilities at home. The instruction is both theoretical and practical. One half of each school day is devoted to class-room work, and the other half to some kind of practical work in the shops, at the barn, poultry department, dairy department, horticultural department, on the farm.

	Hours per week.		
Subject:	1 T	2 T	3 T
Agriculture	5-0	5-0	
Arithmetic	5-0	5-0	5-0
Farm Accounts		5-0	5-0
Farm Carpentry, or practical work in some Department	0-12	0-12	0-12
United States History		5-0	5-0
Geography	5-0		
Grammar	5-0	5-0	5-0
Selected Reading and General Exercises	5-0	5-0	

Division B.

The work in this course is given for the benefit of boys and young men, who by their labor, expect to pay their own expenses while in school. During the day those taking this course do some kind of practical work for which they are paid. Any worthy boy or young man can enter this course without any money and by hard work and economy get an education.

	1 T	2 T	3 T
Agriculture	5-0	5-0	5-0
Arithmetic	5-0	5-0	5-0
Grammar	5-0	5-0	5-0

TRAINING COURSE.

In the past a two-year course has been given for the benefit of those students whose public school training was not sufficient to enable them to enter the freshman class. The number of these men has decreased so rapidly during the past few years that it has been decided to abandon the course after this year. Students who desire such training can obtain it in a high school near their home.

However, for those students who entered the first year course in the fall of 1915, the second year course will be given, thus enabling them to finish the work they set out to do.

TEACHERS' SHORT SPRING COURSE.

The School of Industrial Education offers a short course for teachers during the last term of the college session. This course is prepared primarily with a view to meeting the needs of teachers interested in industrial and scientific subjects, and is timed to suit the convenience of teachers in the country schools.

Exceptional advantages are offered in pedagogy, in the various phases of agriculture, and in manual training.

Besides the subjects mentioned above, instruction will be given in branches of the public school curriculum, and in other subjects for which there is a demand.

Information regarding this course can be had on application to the Director.

SUMMER TERM.

A six weeks' summer term is a part of the regular college work, and courses are given in all departments of the college, full credit being allowed for all work which is satisfactorily completed. In addition, special courses in common and high school subjects are offered for the benefit of the teachers of the State. Those interested should write the Registrar for the Special Summer School Bulletin.

DIVISIONS OF BUSINESS ADMINISTRATION AND PUBLIC AFFAIRS.

JAMES V. BOWEN, Ph. B., Head of the Division, and Professor of Modern Languages.
J. C. HERBERT, M. Sc.....Professor of History and Civics.
F. D. MELLEN, A. B., M. Sc.....Professor of Public Discourse.
G. T. HOWERTON, M. Accts., M. Sc., Associate Professor of Business Practice.
A. M. MAXWELL.....Instructor in Book-keeping.
M. M. DAVIS, B. Sc.....Instructor in Typewriting.

Horace Mann, the great educator said: "If a father wishes to give to his son a legacy, let him send him to a school where he can obtain a practical business education."

Collegiate training has been provided by the State for all classes of the citizens of Mississippi except one. The business man has been left to learn by bitter experience or in a too-short "business course" which teaches little more than bookkeeping and business arithmetic. This need no longer be the case. Merely by a readjustment of the teaching resources of this college, it has been made possible for us to offer to the business men of Mississippi an opportunity to get instruction of collegiate grade in their chosen profession.

The farmer, too, is seeing more than ever the necessity of learning business principles. He is beginning to realize that he must learn to market his own products—and to do so he needs men thoroughly trained to look after the business details of the work. This course provides such men, trained in an atmosphere of friendliness to the farmer, and amid the busy and practical life of the South's greatest agricultural school.

The course will also fit men to teach high-school business courses, and thereby put themselves in line for promotion to principalships, or for positions of responsibility in business life.

The Mississippi A. & M. College is among the first in the United States to establish a course fitted to the needs of the country and town merchant. Some other colleges have courses of somewhat similar nature, but they are either brief courses below collegiate grade, or they are abstract courses intended

for corporation and trust leaders. The course we present is a thoroughly practical one. It is the result of careful study by Mississippi business men of the needs of Mississippi business men. It has been truly said:

"The time has come when it is worth while for the young man who desires to achieve success in a business career to begin by learning what the experience of others has to teach. The saving of waste is an important element in modern industry. It is in keeping with this idea that the wasteful method which requires business men to learn everything anew for themselves through their own experience should give place to a system which provides opportunity for each generation to know the results of the efforts of the preceding generation. It is thereby enabled to start somewhere in advance of where its predecessor did, and so attain larger results.

"There are, of course, many phases of business which every man must learn for himself, but business experience has developed principles and methods of procedure which can be taught. Moreover, these principles and methods have become so far standardized as to constitute a useful foundation upon which to build the experience of the individual."

This foundation in Bookkeeping, Accounting, Cotton Classing, Stenography, Typewriting, Business Law and Business Methods is provided by this course, and in addition the student is given a broad training in Mathematics, English, Modern Languages, History, Economics, Psychology, and Ethics. These will enable him to become a well-rounded citizen and leader in his community. The course in Markets and Rural Economics is used to the full.

The work is extremely practical. Its aim is to educate men in the methods of present-day business, thereby adding to their efficiency. Efficiency, however, is a great deal more than mere skill in performing routine tasks, important as that is. It implies breadth of view, keenness of observation, grasp of underlying principles, thinking power. The courses of instruction, therefore, are designed both to give information and to cultivate the mental qualities that are essential to leadership. There is but one way to handle men—know more than they do.

The four-year course is collegiate in its nature, and will

require close application on the part of the student. It leads to the degree of Bachelor of Science.

Students who can spend only one year in college will be allowed to take a special course. Those who can, however, are urged to complete the four year course, which will provide them with a well-rounded business equipment which can be got nowhere else.

A short course in business will be offered in the summer term of the College.

Public Affairs.—Many students are looking forward to a life of public service of some kind, as secretaries of civic associations, city and county officials, ministers, editors, etc. For the widest success, they should have a broad foundation such as is offered in this course. The studies required are of two kinds: (1) Those designed to familiarize the student with present social, political, and economic conditions in the light of their origin and development, as well as with the literature of his own and other languages; (2) those designed to develop the student's power of expressing his ideas effectively in writing and in speaking. The course of study has been arranged in the belief that the greater part of the time should be devoted to the study of the subjects of the first group, such as History, Political Science, Economics, Sociology, Psychology, Language and Literature, and Mathematics, which are fundamental. Instruction in the principles of effective written and oral expression and practice in writing and speaking are given by the courses in the Department of Public Discourse.

SCHOOL OF GENERAL SCIENCE.

FACULTY.

HON. GEORGE R. HIGHTOWER, B. S.....President of the College.
W N. LOGAN, A. M., Ph. D., Director and Professor of Geology and Mining Engineering.
W. F. HAND, M. Sc., Ph. D., Professor of Chemistry and State Chemist.
J. V. BOWEN, Ph. B.....Professor of Modern Languages.
R. W. HARNED, B. S. A.....Professor of Zoology.
C. F. BRISCOE, Ph. D.....Professor of Bacteriology.
B. J MARSHALL, M. D., Professor of Physiology, Anatomy, and College Surgeon.
H. W. MOODY, A. B., Ph. D.....Professor of Physics.
J. M. BEAL, B. Sc.....Professor of Botany.
H. J. SMITH, B. Sc.....Associate Professor of Chemistry.
H. D McMURTRAY, B. Sc.....Assistant Professor of Physics.
H. H. HARNED, B. S. A.....Instructor in Bacteriology.
*LOUIS ROARK, B. A.....Instructor in Geology.
C. E. WILSON, M. A.....Instructor in Zoology.
W. B. TISDALE, B. S. A.....Instructor in Botany.
H. G. GRANTHAM, B. S.....Fellow in Bacteriology.
A. B. CRATHERS, B. S.....Fellow in Botany.
F. D. THOMAS, B. S.....Fellow in Geology.
F. F. BIBBY, B. S.....Fellow in Zoology.
L. J. NETTO.....Student Instructor in Geology.
J. C. HERBERT, M. Sc.....Professor of History and Civics.
W. D. CHADWICK, A. M., Professor of Physical Education and Director of Athletics.
G. H. BRUNSON, A. M.....Professor of Psychology and Sociology.
T. J. BROOKS.....Professor of Markets and Rural Economics.
F. J. WEDDELL, B. Sc.....Professor of English.
F. D. MELLEN, A. B., M. Sc.....Professor of Public Discourse.
LOUIS FARRELL, First Lieutenant, U. S. A., Unassigned, Professor of Military Science and Tactics, and Commandant of Students.
C. R. STARK, B. Sc.....Associate Professor of Mathematics.
M. L. FREEMAN, M. Sc.....Associate Professor of Drawing.
A. W. GARNER, B. Sc., Ph. M.....Associate Professor of History.
E. S. TOWLES, B. A., M. A.....Associate Professor in English.
J. S. WALLACE, B. Sc.....Assistant Professor of Mathematics.
A. M. MAXWELL.....Instructor in Bookkeeping.
STANLEY WRIGHT, B. A.....Instructor in Mathematics.
CARL LEAKE.....Instructor in Manual Training and Director of Music.
A. B. BUTTS, B. Sc.....Instructor in English.
E. C. HAYS, B. A.....Instructor in Gymnasium.

*Resigned.

OBJECT.

The primary object of the courses of Instruction in the School of General Science is to give instructions in the various lines of science, such as botany, chemistry, geology, physics, entomology, zoology, physiology, and bacteriology. The courses are designed to make specialists in these subjects. They have for their object the preparation of young men for positions as sugar chemists, agricultural chemists, geologists, physicists, entomologists, and bacteriologists. There is constant demand for young men trained in the sciences to take positions in colleges as teachers or investigators, in government work as experts and demonstrators, and in the various industrial lines as specially trained men. The special courses in science make it possible for these demands to be met, they also provide the foundation work for the student who desires to pursue some special line of science. Those young men who have not determined what their life work is to be but who desire to obtain a broad liberal college training will find this course adapted to their needs. Another object of the school is to furnish an introductory course to those young men who desire to become physicians, dentists, or pharmacists, or to specialize in some line of work which requires a liberal science course as a basis. The facilities which are offered make it possible for those who are looking forward to these professions to become well grounded in the fundamental principles underlying their chosen field. The laboratory and class room facilities are superior to any other in the state and are the equal of any in the entire South.

The following is an outline of the courses of study in science. The courses for the Freshman and Sophomore years are required; those of the Junior and Senior years are elective, subject to the restrictions which are given in the following pages:

COURSE OF STUDY.

Freshman Class.

Subject:	Hours per week.		
	1 T	2 T	3 T
Mathematics, 9	5-0	5-0	5-0
English, 1	5-0	5-0	5-0
History, 1, 14	3-0	3-0	3-0

Drawing, 40, 45, 46	0-4	0-4	0-4
Mech. Engin., 28, 54	0-4	0-4	0-4
Hygiene, 2	5-0		
Military Science, 3	0-2	0-2	4-2
Botany, 1			2-4
Physiography, 1a		5-4	
Gymnasium	0-2	0-2	0-2
	18-12	18-16	19-16

Sophomore Class.

Mathematics, 25, 27	5-0	5-0	5-0
English, 2, 24, 13	5-0	5-0	5-0
Chemistry, 20, 22		5-4	5-4
Physics, 4	5-4	5-4	
Zoology, 15, 18, 19	4-2		4-8
Botany, 2, 3	2-4	2-4	
Military Science, 1, 2	0-2	0-2	0-2
	21-12	22-14	19-14

The work for the Junior and Senior years may be selected by the student subject to the following requirements: students electing the General Science Course will be required to take, during the Junior and Senior years, a minimum of 150 course hours of which 7 course hours (5-4) shall be in geology. The remaining 143 course hours may be elected subject to the follow conditions:

1. The student shall divide the work into major and minor groups. The major group shall include the subjects of Botany, Bacteriology, Chemistry, Geology, Physics, Physiology, and Zoology, and the student shall elect not less than 75 and not more than 88 credit hours in these subjects.

(a) Students wishing to specialize in any one of these subjects shall take at least 40 hours in that subject. Under special conditions, with the consent of the head of the department, he may take all of his major credits in one department.

(b) Students not wishing to specialize in any one of these subjects shall take at least 20 hours in each of two major subjects. The remainder of the major time may be taken in any of the major subjects. Not less than ten hours shall be taken in any one subject.

2. To complete his course the student shall select not less than 55 hours nor more than 68 hours in any other departments of the college not included in the major group. These shall be known as minor subjects. French, German, and Spanish shall be considered as separate subjects.

3. Students specializing under rule 1 (a) above, shall take at least twenty hours of one modern language.

4. Students shall not take less than ten hours in any subject, nor more than thirty hours in any one minor subject.

5. At the beginning of the Junior year, students shall file with the director a complete schedule of their proposed courses for the Junior and Senior years. Students specializing in any department must secure the approval of the head of that department before filing the schedule with the director. All other students must secure the approval of their proposed course by some member of the faculty of the School of General Science before filing the course with the director. Changes in this course will be permitted for good reasons, but no student shall change his course without first securing the approval of the head of the department where his original schedule was approved, together with the approval of the director of the School.

Courses For Junior and Senior Years.

It is possible to select from a large number of courses for the junior and senior years. This freedom is allowed subject to the restriction already mentioned to enable the student to select only such subjects as will best aid him in the particular line of science or profession which he intends to follow. The outline given below exhibits a possible distribution of electives as between the sciences and other subjects:

	Junior Year.			Senior Year.		
Subjects:	1 T	2 T	3 T	1 T	2 T	3 T
Sciences	15	15	15	15	15	15
Other Subjects	10	10	10	10	10	10
Total hours	25	25	25	25	25	25

DEGREES.

The degree of Bachelor of Science (B. Sc.) is conferred upon students who spend at least one year in resident study and complete any one of the full courses by passing all the required examinations.

The professional degrees of Civil Engineer, Electrical Engineer, Mechanical Engineer will be conferred upon graduate students who complete satisfactorily the two years' course of study prescribed for the degree.

The degree of Master of Science (M. Sc.) will be conferred on any person who has taken the Bachelor's degree in this college or any other college with equivalent courses, who pursues

and completes the graduate course prescribed and complies with the following requirements:

1. Candidates for the Master's degree shall matriculate as graduate students.

2. Graduates of other colleges shall spend at least one scholastic year in resident study at this college; in the cases of graduates from this college the foregoing residence requirements shall apply, except in cases where the faculty may permit the candidate, on the recommendation of the head of the department in which his major course lies, to do an equal amount of residence work in some other institution of like rank with this college.

3. Any student who desires to take a degree of Master of Science in Agriculture shall be required to satisfy the requirements for the degree of Bachelor of Science in Agriculture.

4. The Directors of the various schools of the College shall constitute a committee on graduate study and it shall be the duty of this committee to enforce the regulations of the faculty with regard to graduate work.

5. All candidates for the Master's degree shall be required to complete at least 60 hours course with a grade of at least 80 in each subject and not more than 25 hours may be completed in any one term.

6. The grades of all graduate students shall be recorded with the Registrar of the College who shall also keep a record of the entrance credits and of the undergraduate work of each graduate student.

7. The candidate shall complete a major and a minor course of his own selection, to be chosen in those departments which offer courses for the Master's degree. The minor course shall be selected subject to the approval of the head of the department in which the major course is taken, and shall occupy one-third the total time. If the student at any time changes his selection of a major department, the work already done in that department shall not be counted towards the Master's degree, unless approved by the head of the new major department.

8. The candidate shall have a reading knowledge of German, French, Spanish, or Latin, to be certified by the department of Modern Languages of this college, the choice to be

approved by the head of the department in which the major work is taken.

9. The candidate shall submit to the head of the department in which his major work is taken at least three weeks before graduation an acceptable graduation thesis on a subject of investigation or study in the department in which the major course is taken. The thesis shall be submitted to the department of English for its approval at least two weeks before commencement.

10. Application for the degree shall be filed with the secretary of the faculty not later than one month after the beginning of the session.

The only honorary degree conferred is that of Master of Agriculture (M. A.) bestowed upon those who have attained eminent success in some branch of agriculture.

Note 1.—In the following pages are given the requirements for graduation in the various courses. In these "degree requirements" the abbreviations, 1T, 2T, 3T, mean first term, second term, third term. The first number of each pair in each of these columns means the number of hours of theoretical or recitation work required each week, and the second number indicates the number of hours of practical or laboratory work required each week. The numbers following the name of each course refer to the course numbers in the detailed statement or "Departments of Instruction," which are arranged alphabetically in this catalogue immediately following these tables.

Note 2.—In the second and third terms of the Senior year each student in the Agricultural School is required to elect enough work to give him a total of at least twenty course hours —a course hour being one hour of class or theoretical work or two hours of laboratory or practical work each week throughout a term.

REQUIREMENTS.

For the Degree of Bachelor of Science in Agriculture.

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
Agronomy, 16, 26 and 2	4—2	4—2	4—2
Hygiene, 1	1—0		
Botany and Forestry, 1			2—4
Drawing, 40, 47	0—4	0—2	
English, 8	3—0	3—0	3—0
History and Civics, 1, 14	3—0	3—0	3—0
Mathematics, 28	5—0	5—0	
Mechanical Engineering, 28	0—4		
Military Science, 3	0—2	0—2	0—2
Physics, 5 and 6		3—2	3—2
Physiography, 1b	3—0		
Gymnasium	0—2	0—2	0—2
Poultry, 1		0—2	
Agricultural Engineering, 15, 16	0—2	0—2	
Veterinary Medicine, 13			3—2

SOPHOMORE CLASS.

Botany and Forestry, 2, 3, and 5	2—4	2—4	2—4
English, 10, 11, 14	3—0	3—0	3—0
Mathematics, 24 and 26	3—0	3—0	3—0
Military Science, 1, 2, 3	0—2	4—2	0—2
Animal Husbandry, 1			4—2
Chemistry, 1 and 5	4—4	4—4	4—4
Dairying, 2	3—2		
Zoology, 15		4—2	
Horticulture, 45	3—2		
Farm Management, 3			1—2

JUNIOR CLASS.

Agronomy, 15 and 9		4—4	4—2
Military Science, 3	0—2	0—2	0—2
Geology, 2	3—3		
Animal Husbandry, 14	4—2		
Chemistry, 2, 3, 4, and 14	4—5		4—5
Dairying, 5		4—4	
Zoology, 18, 19		2—4	2—4
Horticulture, 46		3—2	
Veterinary Medicine, 8	4—2		
Agricultural Engineering, 3			3—4
Rural Economics, 1	4—0		
Poultry, 2			3—2

SENIOR CLASS.

Botany and Forestry, 7	2—2		
History and Civics, 20	3—0		
Military Science, 3	0—2	0—2	0—2
Zoology, 20	2—4		
Bacteriology, 1	2—6		
Agricultural Engineering, 7	3—5		
Farm Management, 4	3—2		
Elective		20	20

REQUIREMENTS.

For the Degree of Bachelor of Science in Civil and Mining Engineering.

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
Mathematics, 29	5—0	5—0	5—0
Hygiene, 1	1—0		
Book-keeping, 2	5—0		
Drawing, 40, 41, 43	0—4	0—6	0—6
Military Science, 3	0—2	0—2	0—2
English, 1	5—0	5—0	5—0
History and Civics, 1, 14, 17	3—0	3—0	8—0
Geology and Mining Engineering, 1		5—0	
Mechanical Engineering, 28, 30, 57	0—4	1—6	0—6
Gymnasium	0—2	0—2	0—2

SOPHOMORE CLASS.

Chemistry, 20, 22	5—4	5—4	
Drawing, 48, 49, 50	0—4	0—4	0—4
Military Science, 3, 2, 1	0—2	0—2	4—2
English, 2, 24, 13	5—0	5—0	5—0
Mechanical Engineering, 33, 34, 58	0—4	0—4	0—8
Mathematics, 25, 27	5—0	5—0	5—0
Physics, 9 and 10	5—4	5—4	5—4

JUNIOR CLASS.

Civil Engineering, 21, 22, 23, 24, 25, 27, 59	5—9	5—9	8—9
English, 5, 9, 15	5—0	5—0	5—0
Geology, 3, 3b, 5	5—2	5—2	
Mathematics, 30, 31	5—0	5—0	5—0
Military Science, 3	0—2	0—2	0—2
Chemistry, 11			2—6

SENIOR CLASS.

Civil Engineering, 28, 60, 30, 31, 32, 57, 34, 19	7—5	5—6	10—6
Mechanical Engineering, 77	0—3		
Military Science, 3	0—2	0—2	0—2
Geology and Mining, 4, 8, 9	5—2	5—2	5—2
History and Civics, 5		5—0	
Mathematics, 11, 32	5—0	5—0	5—0
Geol. and Mining, 7, 7a, 7b	1—4	1—4	1—4

REQUIREMENTS.

For the Degree of Bachelor of Science in Electrical Engineering.

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
Mathematics, 29	5—0	5—0	5—0
Hygiene, 1	1—0		
Book-keeping, 2	5—0		
Drawing, 40, 41, 43	0—4	0—6	0—6
Military Science, 3	0—2	0—2	0—2
English, 1	5—0	5—0	5—0
History and Civics, 1, 14, 17	3—0	3—0	8—0
Geology and Mining, 1		5—0	
Mechanical Engineering, 28, 30, 57	0—4	1—6	0—6
Gymnasium	0—2	0—2	0—2

SOPHOMORE CLASS.

Chemistry, 20, 22	5—4	5—4	
Drawing, 48, 49, 50	0—4	0—4	0—4
Military Science, 3, 2, 1	0—2	0—2	4—2
English, 2, 24, 13	5—0	5—0	5—0
Mechanical Engineering, 33, 34, 58	0—4	0—4	0—8
Mathematics, 25, 27	5—0	5—0	5—0
Physics, 9 and 10	5—4	5—4	5—4

JUNIOR CLASS.

Mechanical Engineering, 37	0—3	0—3	0—3
English, 5, 9, 15	5—0	5—0	5—0
Electrical Engineering, 1, 2, 3	5—3	5—3	5—3
Mathematics, 30, 31	5—0	5—0	5—0
Mechanical Engineering, 39	0—3	0—3	0—3
Mechanical Engineering, 64, 65	5—3	5—3	5—3
Military Science, 3	0—2	0—2	0—2

SENIOR CLASS.

Civil Engineering, 35, 36, 38	2—3		5—0
Military Science, 3	0—2	0—2	0—2
Electrical Engineering, 5, 6, 7	5—6	5—6	5—6
History and Civics, 5		5—0	
Mathematics, 11, 32	5—0	5—0	5—0
Mechanical Engineering, 67, 68, 78 and 47	5—6	0—6	0—6

REQUIREMENTS.

For Degree of Bachelor of Science in Mechanical Engineering.

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
Mathematics, 29	5—0	5—0	5—0
Hygiene, 1	1—0		
Book-keeping, 2	5—0		
Drawing, 40, 41, 43	0—4	0—6	0—6
Military Science, 3	0—2	0—2	0—2
English, 1	5—0	5—0	5—0
History and Civics, 1, 14, 17	3—0	3—0	8—0
Geology and Mining, 1		5—0	
Mechanical Engineering, 28, 30, 57	0—4	1—6	0—6
Gymnasium	0—2	0—2	0—2

SOPHOMORE CLASS.

Chemistry, 20 and 22	5—4	5—4	
Drawing, 48, 49, 50	0—4	0—4	0—4
Military Science, 1, 2, 3	0—2	0—2	4—2
English, 2, 24, 13	5—0	5—0	5—0
Mechanical Engineering, 33, 34, 58	0—4	0—4	0—8
Mathematics, 25, 27	5—0	5—0	5—0
Physics, 9 and 10	5—4	5—4	5—4

JUNIOR CLASS.

Mechanical Engineering, 37	0—3	0—3	0—3
Electrical Engineering, 8 and 9	5—3	5—3	5—3
English, 5, 9, 15	5—0	5—0	5—0
Mathematics, 30, 31	5—0	5—0	5—0
Mechanical Engineering, 39	0—3	0—3	0—3
Mechanical Engineering, 64, 65	5—3	5—3	5—3
Military Science, 3	0—2	0—2	0—2

SENIOR CLASS.

Civil Engineering, 35, 36	2—3		
Mechanical Engineering, 66, 68, 69	5—3	5—3	0—3
History and Civics, 5		5—0	
Mathematics, 11, 32	5—0	5—0	5—0
Mechanical Engineering, 70	2—0		
Mechanical Engineering, 47	0—4	0—4	0—4
Military Science, 3	0—2	0—2	0—2
Engineering Chemistry, 13	2—3	2—6	5—5
Mechanical Engineering, 71, 72 and 78	0—3	0—3	5—3

REQUIREMENTS.

For the Degree of Bachelor of Science in the School of Industrial Education.—Mechanic Arts Division.

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
Agronomy, 16, 2, 15	4—2	4—2	4—4
Drawing, 40, 45, 61	0—4	0—4	0—4
English, 1	5—0	5—0	5—0
Gymnasium	0—2	0—2	0—2
History, 21		5—0	5—0
Hygiene, 1	1—0		
Mathematics, 29	5—0	5—0	5—0
Mechanical Engineering, 28, 57, 60	0—4	1—4	1—4
Military Science, 3	0—2	0—2	0—2
Philosophy and Sociology, 16	2—0	2—0	2—0
Book-keeping, 2	0—5		

SOPHOMORE CLASS.

English, 2, 12, 13	5—0	5—0	5—0
Chemistry, 21, 23	3—4	3—4	3—4
Mathematics, 25, 27	5—0	5—0	5—0
Military Science, 1, 2, 3	0—2	0—2	4—2
Physics, 7, 8	3—4	3—4	
Psychology, 9, 9a	3—0	3—0	3—2
Drawing, 62		1—6	
Mechanical Engineering, 57, 59	1—6		
Mechanical Engineering, 63, 61			1—8

JUNIOR CLASS.

English, 5, 9, 16	5—0	5—0	5—0
History, 18	3—0	3—0	3—0
Military Science, 3	0—2	0—2	0—2
Modern Languages, 14, 18 or 41	5—0	5—0	5—0
Philosophy and Sociology, 11, 12, 13	5—0	5—0	5—0
Practical Teaching, 23, 24, 25	0—2	0—2	0—2
Public Discourse, 32, 20, 19	3—4	3—4	3—4
Mechanical Engineering, 76, 35	1—6	1—6	1—6

SENIOR CLASS.

English, 17, 18, 19	2—0	2—0	2—0
History and Civics, 5, 16, 19	5—0	5—0	5—0
Modern Languages, 16, 20 or 44	5—0	5—0	5—0
Philosophy and Sociology, 10, 14, 15	5—0	5—0	5—0
Practical Teaching, 26, 27, 28	1—2	1—2	1—2
Drawing, 63, 64, 65	1—6	1—6	1—6
Electrical Engineering, 10 and Mechanical Eng. 58		1—6	
Mechanical Engineering, 60, 73, 79	1—6		3—0
Mechanical Engineering, 34			0—4

REQUIREMENTS.

For the Degree of Bachelor of Science in the School of Industrial Education.—Agricultural Division.

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
Agronomy, 16, 2, 15	4—2	4—2	4—4
Drawing, 40, 45, 61	0—4	0—4	0—4
English, 1	5—0	5—0	5—0
Gymnasium	0—2	0—2	0—2
History, 21		5—0	5—0
Hygiene, 1	1—0		
Mathematics, 29	5—0	5—0	5—0
Mechanical Engineering, 28, 57, 60	0—4	1—4	1—4
Military Sciences, 3	0—2	0—2	0—2
Philosophy and Sociology, 16	2—0	2—0	2—0
Book-keeping, 2	0—5		

SOPHOMORE CLASS.

English, 2, 12, 13	5—0	5—0	5—0
Chemistry, 21, 23	3—4	3—4	3—4
Mathematics, 25, 27	5—0	5—0	5—0
Military Science, 1, 2, 9	0—2	0—2	4—2
Physics, 7, 8	3—4	3—4	
Psychology, 9, 9b	3—0	3—0	3—2
Botany, 18		3—4	
Animal Husbandry, 1			4—2
Dairying, 2	3—2		

JUNIOR CLASS.

English, 5, 9, 16	5—0	5—0	5—0
History, 18	3—0	3—0	3—0
Military Science, 3	0—2	0—2	0—2
Modern Languages, 14, 18 or 41	5—0	5—0	5—0
Philosophy and Sociology, 11, 12, 13	5—0	5—0	5—0
Practical Teaching, 23, 24, 25	0—2	0—2	0—2
Public Discourse, 32, 20, 19	3—2	3—2	3—2
Agronomy, 9			4—2
Chemistry, 2, 3, 4 and 14	3—4	3—4	

SENIOR CLASS.

English, 17, 18, 19	2—0	2—0	2—0
History and Civics, 5, 16, 19	5—0	5—0	5—0
Modern Languages, 16, 20 or 44	5—0	5—0	5—0
Philosophy and Sociology, 10, 14, 15	5—0	5—0	5—0
Practical Teaching, 26, 27, 28	1—2	1—2	1—2
Agricultural Engineering, 19	3—5		
Agronomy, 27		3—2	
Horticulture, 47, 48, 50	3—2	3—2	3—2
Zoology, 28			3—4

SCHOOL OF INDUSTRIAL EDUCATION.

Division of Business Administration.

(Transition course, for 1916-17 only)

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
English, 1	5—0	5—0	5—0
Mathematics, 29	5—0	5—0	5—0
History, 1, 22	3—0	3—0	3—0
Business Methods, 23, 24	3—0	5—0	
Book-keeping, 15, 16, 17	2—8	0—8	0—8
Typewriting, 12	0—4	0—4	0—4
Commercial Geography, 15			5—0
Woodshop, 28	0—4		
Military Science, 3	0—2	0—2	0—2

SOPHOMORE CLASS.

English, 2, 12, 13	5—0	5—0	5—0
Mathematics, 25, 27	5—0	5—0	5—0
Military Science, 1, 2, 3	0—2	0—2	4—2
Chemistry, 21, 23	3—4	3—4	3—4
Spanish, 42	3—0	3—0	3—0
Business Law, 25	3—0	3—0	3—0
Public Discourse, 8, 31	4—2	4—2	
Stenography, 13	0—6	0—6	0—6

JUNIOR CLASS.

English, 2	5—0		
English, 9, 16		5—0	5—0
Economics, 24	3—0	3—0	
Money and Banking, 25			3—0
Econ. Hist. Eng., 28	3—0	3—0	
Spanish, 42, 43	6—0	6—0	6—0
Public Discourse, 32, 20, 19	3—2	3—2	3—2
Business Methods, 26	3—0	3—0	
Business Organization, 27			3—0
Stenography, 14	0—6	0—6	0—6
Markets, 1			4—0
Military Science, 3	0—2	0—2	0—2

SENIOR CLASS.

(Business Administration)

Spanish, 44	5—0	5—0	5—0
Ethics and Sociology, 13, 21, 15	5—0	5—0	5—0
Ec. Hist. U. S., 23		3—0	3—0
Public Discourse, 24	3—0		
Book-keeping, 15, 16, 17	2—8	0—8	0—8
Business Methods, 28, 29, 30	4—0	4—0	6—0
Stenography, 13	0—6	0—6	0—6

SCHOOL OF INDUSTRIAL EDUCATION.

Division of Public Affairs.

(Transition course, for 1916-17 only)

FRESHMAN CLASS.

Subject: (See note p. 75)	Hours per week. 1st T	2d T	3d T
English, 1	5—0	5—0	5—0
Mathematics, 29	5—0	5—0	5—0
History, 1, 22	3—0	3—0	3—0
Business Methods, 23, 24	3—0	5—0	
Book-keeping, 15, 16, 17	2—8	0—8	0—8
Typewriting, 12	0—4	0—4	0—4
Commercial Geography, 15			5—0
Woodshop, 28	0—4		
Military Science, 3	0—2	0—2	0—2

SOPHOMORE CLASS.

English, 2, 12, 13	5—0	5—0	5—0
Mathematics, 25, 27	5—0	5—0	5—0
Military Science, 1, 2, 3	0—2	0—2	4—2
Chemistry, 21, 23	3—4	3—4	3—4
Spanish, 42	3—0	3—0	3—0
Business Law, 25	3—0	3—0	3—0
Public Discourse, 8, 31	4—2	4—2	
Stenography, 13	0—6	0—6	0—6

JUNIOR CLASS.

English, 2	5—0		
English, 9, 16		5—0	5—0
Economics, 24	3—0	3—0	
Money and Banking, 25			3—0
Econ. Hist. Eng., 28	3—0	3—0	
Spanish, 42, 43	6—0	6—0	6—0
Public Discourse, 32, 20, 19	3—2	3—2	3—2
Business Methods, 26	3—0	3—0	
Business Organization, 27			3—0
Stenography, 14	0—6	0—6	0—6
Markets, 1			5—0
Military Science, 3	0—2	0—2	0—2

SENIOR CLASS.

Spanish, 44	5—0	5—0	5—0
South American Problems, 45	3—0		
Ethics and Sociology, 13, 21, 15	5—0	5—0	5—0
Econ. Hist. U. S., 23		3—0	3—0
Public Discourse, 21, 22, 23, 24, 14, 15	2—8	2—8	2—8
Economics, 26, 27	3—0	3—0	5—0
Book-keeping, 15, 16	2—8	0—8	

DEPARTMENTS OF INSTRUCTION.

AGRICULTURAL ENGINEERING.

Professor SCOATES.
Mr. RANEY.
Mr. VERNON.

The purpose of this department is to train students of the Agricultural School in the engineering problems found on the farm. There is, however, a demand for men specially fitted in agricultural engineering and in view of this fact the department offers the use of its equipment to any who wish to take special work along this line.

The demand for agricultural engineers, here in the South, is, perhaps, greater than in any other section of the country. It seems that an engineer who understands agriculture is a rare man and yet it is a combination to be desired. On the farm are found engineering problems that fall within the scope of most of the engineering fields. Yet to apply engineering science to the farm one must understand farm conditions. It has been on account of these facts that today the demand for agricultural engineers has not only come from the schools and colleges, but also the large plantations, drainage and irrigation districts farm implements firms, U. S. Government, railroads, etc.

Equipment.

Farm Machinery Laboratory.—Here will be found a large number of the different farm machines and various makes of the same machines; also facilities for comparing and testing the machines in laboratory and field.

Agricultural Surveying and Drainage.—The equipment consists of one transit, twenty levels, together with rods, tapes, poles, pins, and all other instruments necessary for farm surveying. A collection of home-made levels is on hand. Also all necessary equipment for laying tile.

Farm Buildings.—A large draughting room supplied with blue prints, photographs, and models of farm buildings. A

department library well stocked with books bearing on this subject.

Farm Motors.—Nine gasoline engines, three gas tractors, hot air engine, and a farm electric lighting plant, together with all apparatus for testing same.

Concrete Construction.—Apparatus for testing cement, concrete and aggregate; also forms and machines both home-made and commercial, for making various concrete structures found on the farm.

COURSE OF STUDY.

3. **Farm Machinery.**—This course embraces the study of machinery used on the farm; tillage, harvesting, threshing, pumping, etc. The object is to acquaint the student with the design, construction, and operation of machinery used on the farm. The student will be given an opportunity to compare implements as to strength, workmanship, and general adaptability. The practical study will consist of a detailed study of a machine in the laboratory. *Three periods theoretical, and four periods practical. Required first term, Agricultural Juniors.*

4. **Farm Buildings.**—This course consists of a systematic study of farm buildings, their arrangement, location, structure, ventilation, lighting and cost. The student will be required during the practical time, to design and draw plans for farm buildings. *Three period lecture, and six periods practical. Elective, Agricultural Seniors.*

5. **Farm Motors.**—The object of this course is to acquaint the student with the theory and practice of farm motors. The practical work will consist in running and testing the various motors in the laboratory. *Three periods theory, and four practical. Elective, Agricultural Seniors.*

6. **Concrete Construction.**—The object of this course is to give the student a working knowledge of the testing of cement, concrete, and aggregate. Further, to get familiar with the actual operations of mixing and placing concrete, by having him make some of the concrete structures found on the farm. *One period theory, and two periods practical. Elective, Agricultural Seniors.*

7. **Agricultural Surveying and Drainage.**—The object of this course is to enable the student to do accurately all kinds of farm surveying and get a practical knowledge of the different kinds of land drainage—surface and sub-surface—such as hillside ditches, terracing, open ditches, and tiling. In addition to the theoretical study of these subjects, students make surveys of parts of the farm with tapes and level, compute areas, make maps and lay tile. *Prerequisite, Mathematics 26. Three periods theoretical, and five periods practical. Required first term, Agricultural and Industrial Education Seniors.*

8. **Road Construction and Maintenance.**—The object of this course is to give the student a working knowledge of the different kinds of roads,

their construction and maintenance. *One period theory, and two periods practical. Elective, Agricultural Seniors.*

9. **Farm Machinery.**—This course embraces the study of farm machinery, such as is needed on the farms of this state. Its construction, management, and repair are studied both in class room and in laboratory. *Three periods theoretical, and four periods practical. Required third term, first year, Two-Year Agricultural students.*

10. **Farm Buildings.**—This course embraces the study of barns, hog houses, poultry houses, farm homes and all farm buildings; their arrangement, design and construction. *Three periods theoretical and four periods practical. Required, second term, Second year, Two-Year Agriculture students.*

11. **Spraying Apparatus.**—A brief course in the construction and operation of pumps and spraying machinery. This course is especially designed for those expecting to engage in fruit farming. *One period theoretical, and two periods practical. Elective, Agricultural Seniors.*

12. **Research.**—This course allows the student to follow some line of research in any of the subjects taught in Agricultural Engineering. *Five hours credit. Elective, Agricultural Seniors.*

13a. **Farm Mathematics.**—This is an elementary course in mathematics in which all the problems are such as the average farmer would meet. *Three periods theoretical. Required, first term, first year, Two-Year Agriculture students.*

13b. **Farm Mathematics.**—A continuation of course 13a. *Three periods theoretical. Required, second term, First-Year, Two-Year Agriculture students.*

14. **Farm Mathematics.**—This is an advanced course in mathematics in which the student is taught not only how to figure areas of land, grade of ditches, etc., but is also required to go in the fields and do the actual work. This course also covers methods of surveying and draining land. *Three periods theoretical and four periods practical. Required, third term. Second Year, Two-Year Agriculture students.*

15. **Farm Mechanics.**—This course gives the student practical instruction in fitting of harness, hitching up horses, operation of farm machinery, assembling and repairing farm machinery. *Two periods practical. Required, first term, Agricultural Freshmen.*

16. **Farm Mechanics.**—This course gives the student practical instruction in rope tying and splicing, belt lacing, repair of harness, soldering, pipe fitting and babbitting. *Two periods practical. Required, second term, Agriculture Freshmen.*

17. **Seminar.**—This course consists of the preparation, presentation and discussion of papers dealing with Agricultural Engineering subjects. *One period Second Term Agricultural Seniors.*

18. **Seminar.**—Same as A. E. 17 except for third term.

19. **Advanced Agricultural Engineering.**—This course is designed to meet the needs of the post graduate students taking advanced work in Agricultural Engineering. It consists of reading books and other literature dealing with Agricultural Engineering subjects that are not used as texts in this department. The class meets once a week during the session and discusses the books read. *Equivalent to 5 hours theoretical. Required of all Post Graduate students electing work in Agricultural Engineering.*

20. **Post Graduate Work.**—For those wishing to take post graduate work in this department additional reading and laboratory work to that given in A. E. 19 will be outlined for each student to meet his needs according to the subjects he is electing work in and whether those subjects are major or minor work.

AGRONOMY.

Professor ROBERT.
Assistant Professor WEST.
Assistant Professor SNOW.
Mr. SUTTLE.

The course in Agronomy is designed to familiarize the student with the principles underlying productive soils and plant growth. The importance of applying economic business principles to crop husbandry cannot be overestimated. The fundamental principles underlying successful soil management should be understood by every farmer. Theory without practice is of very little value. Practice without theory is at best expensive and a hard school master.

An agricultural collegiate training may not make a man practical, but it will give a practical man theoretical knowledge about basic principles which not only makes his work more pleasant but also more remunerative. Our aim is to prepare young men to successfully solve the practical problems of farm life, and to fit them for educational and research work.

Instruction in this department is given by text-books and lectures, supplemented by practical work in the agronomy laboratories, green-house, demonstration field plats, and experiment station and college fields.

OUTLINE OF COURSES.

2. **Soils.**—The soil is first studied as a medium for root development, and second, as a reservoir for water. The student then takes up a study of the plant nutriments in the soil, alkali soils, manures and fertilizers,

organisms in the soil, the soil air, heat of the soil, also external factors in soil management, such as tillage, adaptation of crops to soils, relation of soil productiveness to crop rotation, etc. A full course in the physical properties of soils is given in the laboratory. *Third term, Freshman class; 4-2 course. Required of all Agricultural and Industrial Education Freshmen, and second year two-year Agricultural students.*

9. **Forage Crops.**—A course dealing especially with the production, harvesting, and curing of the most important Southern forage crops. These are studied in class room, demonstration field plats and our experimental field. The laboratory work consists of a full course in examining and grading grains. Prerequisits, courses 16 and 26. *Third term; four hours class room and two hours laboratory and field work. Required of all Agricultural and Industrial Education Juniors.*

14. **Plant Breeding.**—A course dealing with the improvement of such field crops as cotton, corn, wheat, oats, the important grasses and legumes. Special attention is given to variation, selection, hybridization, and the isolation of elementary species. The laboratory work consists of a full course in cotton grading. *Third term; a 3-2 course. Required of all Agronomy Seniors.*

15. **Soil Management.**—A course dealing with such subjects as soil investigations by culture, by experiments, losses of plant food from soils, fixation of plant food by soils; methods of testing various constituents, relation of fertility to appearance of soils, factors in crop production, essential factors of success in farming, and the value of land. Prerequisite, Course 2. *Second term: four hours class room and four hours laboratory and field plat work. Required of all Agricultural Juniors, second term, and Industrial Education Freshmen, third term.*

16. **Elements of Agriculture.**—This covers in an elementary way many of the basic principles of agricultural work. Special attention is paid to the subjects—soils, fertilizers and feed stuffs. Detailed study of the best methods of improving field crops. Practical instruction is given in the demonstration field plats and experimental fields. The Departments of Animal Husbandry and Dairy Husbandry and Entomology will also give practical instruction to this class. *First term: four hours class room, and two hours laboratory. Required of all Agricultural and Industrial Education Freshmen, and second year two-year students.*

17. **First Principles of Agriculture.**—An elementary course in Agriculture designed to teach the factors of productive soils and plant growth. *First year, first term Two-Year Course students in Agriculture; three hours class room and two hours laboratory and field work per week.*

18. **Crop and Soil Improvements.**—This is an elementary treatment of the common field crops, and best methods of soil improvements. *First year, third term; three hours per week class room, and two hours laboratory and field work. Required of all Two-Year Agricultural students.*

21. **Forage Crops.**—A detailed study is made of common forage crops and their best methods of raising and preserving. *Required of all Two-Year Agricultural students. Third term; second year. Three hours class room and two hours field work.*

24. **Outline of Graduate Work for Students Pursuing their Minor Course for the Master of Science Degree in Agronomy.**—Students taking their Master's course who elect minor work in Agronomy are required to spend at least one-third of their year's resident work in this department. The completion of the work will require the equivalent of about six course-hours' post-graduate work, exclusive of laboratory and field work, and other agricultural readings. Upon completion of each subject assigned, the student will make arrangements with the head of the department for a written examination. Students are urged to confer freely with the head of the departments regarding their text-book and library work. The practical work of this course consists in demonstration field plat work, and the cultivation, harvestsing, and mounting of the more common grain crops, clovers, and grasses. The student is required to make crosses of common field crops and laboratory collection of the same. We give below a few books that will be used as texts. The student will be furnished names of a number of bulletins and other agricultural literature that will constitute a part of his regular course of study.

"Meadows and Pastures," by Wing;
"The Cereals in America," by Hunt;
"Soils and Crops," by Hunt and Burkett;
"Fodder and Pasture Plants," by Clark and Malte;
"Clovers and How to Grow Them," by Shaw.
"Soil Fertility and Permanent Agriculture," by Hopkins.
"Plants and Their Culture," by C. V. Piper.
"Manures and Fertilizers," by Wheeler.
"Productive Farm Crops," by Montgomery.

25. **Outline of Graduate Work for Students Pursuing their Major Course for the Master of Science Degree in Agronomy.**—The work herewith outlined embraces in the main detailed studies of soils, plant food, and field crops. For the completion of this work the equivalent of not less than fifteen course-hours' post-graduate work exclusive of thesis, laboratory, field work, and assignment of bulletins, current literature and other agricultural readings will be required. The thesis must be approved not later than the beginning of the second term, and should occupy at least one-half of the student's time during the second and third term. Each candidate for the Master's Degree will be required to make and deliver to the Department of Agronomy not less than one hundred hybrids of the more common field crops, and to complete such pot cultures and demonstration plat work as will be outlined by this department. The details of all practical work in the green-house, laboratory and demonstration plats are to be neatly compiled and turned over to this department with the thesis. The books

enumerated below are to be used as texts, and will constitute a part of the theoretical work done by the student. Upon completion of each text the student will stand a written and oral examination on the subject covered.

"Soils and Soil Fertility," by Whitson and Walster;
"Soils and Crops," by Hunt and Burkett;
"Soils Fertility and Permanent Agriculture," by Hopkins;
"Soils," by Hilgard;
"Physics of Agriculture," by King;
"The Corn Crops," by Montgomery;
"The Cereals in America," by Hunt;
"Farm Management," by Warren.
"Meadows and Pastures," by King;
"Alfalfa," by Coburn;
"Clovers," by Shaw;
"Grasses," by Spillman;
"Fodder and Pasture Plants," by Clark and Malte;
"Plant Breeding," by Bailey;
"Punnett's Mendelism";
"Diseases of Plants," by Stevens and Hall;
"Growing Cotton," by Mercier and Savely;
"Soil Management," by King;
"Forage Plants and Their Culture," by C. V. Piper;
"Cotton," by Burkett;
"Heridity," by J. A. Thompson;
"Principles of Irrigation Farming," by Widtsoe;
"Manual of Weeds," by Aida Georgia;
"A Text Book of Grasses," by Hitchcock;
"Manure and Fertilizers," by Wheeler;
"Fertilizers and Crops," by Van Slyke;
"Productive Farm Crops," by Montgomery;
"Soils, Their Properties and Management," by Lyon, Fippin, and Buckman.

26. **Field Crops.**—This course covers our ordinary Southern field crops, and treats particularly of varieties, their planting, cultivation, and harvesting. *Second term, four hours per week class room and two hours laboratory. Required of all Agricultural Freshmen.*

27. **Soil Fertility and Permanent Agriculture.**—This is an advanced course dealing with systems of permanent agriculture; recent theories regarding soil fertility and the use of fertilizers; a consideration of various fertility factors, as manufactured commercial fertilizers, crop stimulants and protective agents; the losses of plant food from the soil, and methods of maintaining and increasing the soil content of same. Prerequisites, courses 2 and 15. *Second term; a* 3-2 *course. Required of all Agricultural Seniors specializing in Agronomy, of Industrial Education Seniors, and Elective for all Agricultural Seniors.*

28. **Grasses and Legumes.**—This course deals especially with temporary and permanent pastures. Practical study of meadow and pasture plants is made in the crops laboratory, agronomy plats, and College and Experiment Station pastures. Prerequisites, courses 16, 26, and 9. *Third term; a 3-2 course. Required of all Agronomy and Industrial Education Seniors, elective for all Agricultural Seniors.*

29. **Agricultural Civil Service Course.**—The Federal Department of Agriculture employs annually a great number of young men, on account of their technical training in the sciences that underlie the theory and practice of Agriculture. Competetive examinations are held each spring to secure applicants for filling these positions. It is a well known fact that the graduates of our School fill more of these positions than those of any similar institution in the United States. The course is designed to prepare young men especially for these examinations. The work, in the main, consists in the bringing together of agricultural facts in a practical, concise manner such as are required on these examinations. Reviews are also given of similar examinations held in previous years. *Second term, 2-0 course, elective for Agronomy Seniors.*

30. **Research Work.**—This course is designed for Agronomy students who desire to work out special problems in soils or crops. *A 1-3 course, first, second, and third terms. Elective for Agronomy Seniors.*

ANIMAL HUSBANDRY.

Professor BARNETT.

The courses offered in this department treat, in as direct and practical a way as possible, all subjects which pertain to the judging, selecting, breeding, feeding, improvement, care, and management of live stock.

Theoretical instruction is given both from text-books and lectures, and practical work in score card and comparative judging.

The department is well equipped with all the prominent breeds of beef and dairy cattle, heavy and light horses and mules, bacon, and lard types of hogs, mutton and fine-wooled breeds of sheep; and the student is given every opportunity to become proficient in the judging, feeding, and management of live stock.

OUTLINE OF COURSES.

1. **Breeds of Farm Animals.**—A study of the history, development, characteristics, and adaptations of the types and breeds and market classes of horses, cattle, sheep, and swine. *One term; four hours per week recitation and two hours per week comparative judging. Re-*

quired of all Agricultural Sophomores, and Industrial Education Freshmen; third term.

14. **Feeds and Feeding.**—A study of the character and composition of feed stuffs, and method of feeding farm animals under varying conditions. Work to a reasonable extent is required of students in calculating rations and in studying rations in practical use in the community and suggesting improvements if desirable. The economy of the subject is carefully considered. *One term: four hours per week in class room; two hours per week practical. Required of all Agricultural Juniors; first term.*

15. **Principles of Breeding.**—A study of the subject of heredity from various points of view in its application to breeding farm animals. *Elective. One term; five hours per week in class room, and two hours per week is devoted to studying pedigree construction and working out problems in heredity from herd books. For Agricultural Seniors, second term.*

20. **Systematic Judging.**—This course is designed to acquaint the student with a thorough knowledge of the important features to be taken note of in judging, and to equip him to judge animals at county fairs, etc. *Two hours per week in class room and two hours per week practical work in score card work, taking measurements, etc. Elective. Second term; Agricultural Seniors.*

16. **Beef and Hog Production.**—A study of the most economic and best methods of producing beef and hogs on Southern farms, also finishing and preparing them for market or exhibition. Special attention is given to the use of home grown feeds, wintering, breeding and stock cattle, and practical management of hogs. *Elective. One term, four hours per week in class room, and two hours per week judging bulls, boars, and other special classes of stock, and two hours per week working out practical farm problems. For Agricultural Seniors, third term.*

17. A brief study of the most important breeds and market classes of live stock. *One term; three hours per week in class room and two hours per week judging live stock. Required of all students in the Agricultural Short Course, second term, first year.*

18. A study of the most economic methods of feeding farm animals, with special reference to the use of home grown feeds. *One term; three hours per week in class room and two hours per week practical. Required of all students, in the Agricultural Short Course, first term, second year.*

19. A study of the principles of breeding and the methods of improving, marketing and caring for live stock. *One term; three hours per week in class room and two hours per week judging horses and mules. Required of all students in the Agricultural Short Course, third term, second year.*

AUDITING.

See Business Administration.

BACTERIOLOGY.

Professor BRISCOE.
Mr. HARNED.

1. **General Bacteriology.**—In this course the student will be made acquainted with the technique of bacteriology. He will learn to recognize, stain, cultivate, and classify bacteria; will study their chemical and physiological processes, and methods of combating their activities. A brief general text will be followed in the lectures. *Two hours a week recitation, and six hours in the laboratory. First term. Required of Agricultural Seniors; offered to all students prepared for the work. Prerequisite, one term in chemistry and two terms in botany and zoology.* Professor BRISCOE and Mr. HARNED.

2. **Soil Bacteriology.**—This course will deal with bacteria in relation to soils and crops. A study of the chemical and physiological actions of these organisms will be made in a series of selected experiments. *Elective. One hour a week recitation, three hours laboratory practice; third term. Prerequisite, course* 1.
Professor BRISCOE and Mr. HARNED.

3. **Dairy Bacteriology.**—In this course will be considered the bacteria of milk and milk products. Attention will be given to bacteria useful in dairying and to the subject of sanitary milk and its relation to public health. *Elective. One hour a week recitation; three hours laboratory practice. Third term. Prerequisite, course* 1. Mr. HARNED.

4. **Veterinary Bacteriology.**—A course in the microbiology of animal diseases. Brief studies will be made of the organisms in relation to the common diseases of farm animals and household pets. Demonstrations and laboratory work will be given, using the common test animals, guinea-pigs, rabbits, etc. *Elective. Two hours a week recitation; six hours laboratory practice. Second term. Prerequisite, course* 1.
Professor BRISCOE and Mr. HARNED.

5. **Graduate Work.**—The work in this course is arranged with each individual student. Graduates of this or other colleges may take up any line of bacteriological research agreed upon with the one in charge. *Hours and credits to be arranged. Either minor or major work may be taken. Laboratories open from 8:30 a. m. to 5 p. m.*
Professor BRISCOE.

6. **Elementary Bacteriology.**—This course deals with elementary questions of bacteriology as applied to every day life on the farm. It consists of a series of lectures and demonstrations on Agricultural bacteriology including a study of the bacteria of milk, soil, and bacteria causing diseases of farm animals. *Four hours lecture work, and two*

hours field and laboratory demonstrations. Required of all Two Year Agricultural students; second term, first year.

Professor BRISCOE and Mr. HARNED.

7. **Sanitary Bacteriology.**—This course deals with bacteria in water and sewage. These bacteria are considered especially in relation to water systems and filters for cities and towns. *Elective. One hour a week recitations: three hours laboratory practice. Second term. Prerequisite, course* 1. Professor BRISCOE and Mr. HARNED.

BIOLOGY.

See Botany, and Forestry, and Zoology and Entomology.

BOOKKEEPING.

See Business Administration.

BOTANY AND FORESTRY.

Professor BEAL.
Mr. TISDALE.
Mr. CAROTHERS.

It is the aim of this department to acquaint students with plants and the fundamental principles which govern their life processes. Courses are planned to awaken an interest in the plant world, to give some such technical knowledge of plants as is needed in a well rounded education, and to give certain training which will be helpful in growing plants on the farm or in carrying on work in the different lines of plant industry.

1. **Farm Botany.**—This course endeavors to give the student an outline of the life history of the higher plants and some acquaintance with the groups into which they are divided. Stress is laid upon the structure and nature of seeds, conditions favoring germination, growth of plants, development of flowers, fruit, etc. Students are taught how to use a manual in identifying plants, and about fifty common plants which flower in the spring are collected and identified. *One term: two hours per week in class room and four hours laboratory practice. Textbook: Andrew's Botany with Flora. Required of Agricultural and General Science Freshmen the third term.*

Professor BEAL and Mr. TISDALE.

2. **Structural and Physiological Botany.**—This course is designed to give a general idea of the gross and microscopical structure of roots, stems, leaves, flowers, and fruits of flowering plants, and further to

acquaint the student with some of the physiological processes of plant life. Absorption, transportation, and assimilation of plant food; photosynthesis, respiration, excretion of waste matter; responses to stimuli, etc., are subjects considered. *One term; two hours per week recitation, and four hours laboratory and field practice. Required of all Agricultural and General Science Sophomores the first term.*

Professor BEAL and Mr. TISDALE.

3. **Morphology of the Lower Plants.**—This course deals with representative groups that illustrate the line of evolution of plants. Emphasis is placed on structure and methods of reproduction. *One term; two hours per week recitation, and four hours per week in the laboratory or field. Text-book: Bergen & Davis's Principles of Botany. Required of all Agricultural and General Science Sophomores, second term.*

Professor BEAL and Mr. TISDALE.

5. **Plant Diseases.**—This course deals with the fungous and bacterial diseases of plants, special emphasis being placed on the diseases of cultivated plants. Specimens of fungi which attack our common plants are examined in the laboratory to familiarize the students with their structural characters, and studies of their life history are made for the purpose of learning how to combat them. Text-book: Stevens and Hall's Diseases of Economic Plants. *One term; two hours per week recitation, and four hours laboratory or field work. Required of all Agricultural Sophomores the third term. Prerequisite, course* 3.

Professor BEAL.

7. **Farm Forestry.**—This course is intended to give the student a general idea of the relation of forests to agriculture. The following topics are treated: Influence of forests upon the farm surroundings, and upon the soil bearing them; the farm wood-lot, and how to manage it; collection and planting of forest seeds, and making of forests nurseries; tree planting for timber; importance of the forest industries of the state and nation. *One term; two hours per week in class room and two hours per week in laboratory or field. Required of Agricultural Seniors the first term.*

Mr. TISDALE.

11. **Ecology of Plants.**—This course is designed to teach the effects of environment upon plant growth. The effects of soil, moisture, heat, altitude, latitude, and plant associations on the form, structure, and usefulness of the individual plant, are studied. The distribution of the various plant societies over the earth's surface as a result of ecological factors, is investigated. *One term; two hours per week recitation, and two hours in field and laboratory. Elective, second term.*

Professor BEAL.

12. **Advanced Plant Pathology.**—This course deals with the subject of plant diseases as caused by parasitic plants. Fungous and bacterial diseases of plants are investigated in the laboratory and methods for combating same are studied. Emphasis is placed on the literature dealing with this subject. Bibliographies on selected subjects are pre-

pared from the Experiment Station bulletins, and from the publications of the United States Department of Agriculture. *One hour per week lecture and recitation, and six hours laboratory or field work. Elective, first or third term.* Professor BEAL.

13. **Taxonomy of the Higher Plants.**—A study of the kinds of plants with special reference to their morphology, identification habitat, and range of species. A study is made of the plants growing in the local flora, and an herbarium prepared. *One hour lecture per week and six hours laboratory or field work. Elective, first or third term.*
Professor BEAL.

14. **Dendrology.**—A biological and taxonomic study of trees and shrubs, including laboratory study and field observations upon native and cultivated species. *One hour per week lecture and four hours laboratory and field work. Elective, first or third term.*
Professor BEAL.

15. **Plant Physiology.**—In this course the student studies the principal life functions of plants, such as photosynthesis, respiration, transpiration, growth, and the responses of plants to environmental conditions and physical stimuli. *One hour, lecture per week, and four hours laboratory work. Elective, second term.* Professor BEAL.

16. **Cytology and Embryology.**—Study of the vegetable cell, its multiplication and contents; practical application of modern methods in a study of nuclear and cell division. Study of the embryology of angiosperms; spermatogenesis, oogenesis, fertilization, and development of the embryo. Introduction to methods of investigation. *One hour lecture per week and six hours laboratory work. Elective, second term.*
Professor BEAL.

17. **Histology.**—A study of the structure and development of the tissues of higher plants. *One hour lecture per week and six hours laboratory work. Elective, second term.* Professor BEAL.

18. **General Botany.**—This course endeavors to give the student a brief survey of the plant kingdom and an outline of the life history of the higher plants from germination to maturity. Stress is laid on floral structure, fruit formation and reproduction. *Second term; three hours per week in class room, and four hours per week in laboratory. Required of all Pedagogical Freshman.* Mr. TISDALE.
This course will be particularly adapted to the needs of the summer school students desiring work in botany, and especially, high school teachers who give work in botany and agriculture.

21. **Weeds.**—A study of the most important farm and garden weeds occurring in Mississippi with methods of introduction, how to combat them, etc., as well as a study of their seeds so that it will be possible to recognize them when occurring as contaminations in agricultural seed. *One lecture per week, and two hours laboratory work. Elective, second term.* Professor BEAL.

22. **Agricultural Botany.**—This is a brief course in elementary botany; it is planned to suit the needs of students that have not had the advantage of high school training and who expect to engage in farming. *Lectures or recitations three hours per week and two hours field or laboratory work; second term. Required of Freshmen in the two-year course in Agriculture.* Mr. TISDALE.

23. **Advanced Work in Botany and Forestry.**—In addition to the courses outlined above, work leading to the degree of M. Sc., may be taken in this department. The nature and scope of the work will be arranged by special consultation with the applicant.

BUSINESS ADMINISTRATION.

Professor BOWEN.
Associate Professor HOWERTON.
Mr. MAXWELL.
Mr. DAVIS.

STENOGRAPHY AND TYPEWRITING.

12. **Typewriting.**—Students taking the course in Business Administration will be required to show proficiency in typewriting—including speed and accuracy—together with an understanding of the various business forms most commonly used on writing machines. A room is fitted up with a number of writing machines, and students will be allowed access to them at suitable hours for the purpose of practice. *Four hours a week for three terms. Required of Business Administration Freshmen. Open to all.* Mr. DAVIS.

13. **Stenography.**—"Business Shorthand" from the Graham System is the text used first year. This lays a foundation for accuracy and speed, since both are stressed from the very first lesson. *Six hours a week of actual class work for three terms. Required of all Sophomores in Business Administration, and of Seniors in 1916-17.* Professor HOWERTON.

14. **Stenography.**—Continuation of Course 14, using Handbook and Dictionary. Daily practice in dictation and transcription on typewriter. *Six hours a week for three terms. Required of Juniors in Business Administration.* Professor HOWERTON.

ACCOUNTING.

2. **Bookkeeping.**—An elementary course in bookkeeping and banking. It is thorough and practical, and fits one to take charge of any ordinary set of books. *Five hours per week, first term. Required of Engineering and Industrial Education Freshmen.* Mr. MAXWELL.

15. **Bookkeeping.**—Elementary course, with a well indexed text-book as a reference book. Students use Sales, Purchase and Cash Books, Journal and Ledger, making Trial Balances, Trading, Profit and Loss, and Resources and Liability Statements. Material for this work is got from

a budget in which are found all business papers used in the set, and pupils handle all these, including an actual bank account, from the first, Pupils finishing this course are able to keep books for any ordinary business, and have good foundation for the study of Accountancy. *Two hours theory and eight hours practice each week, first term. Required of Freshmen in Business Administration, and of Seniors in 1916-17.* Professor HOWERTON.

16. **Bookkeeping.**—Wholesale Merchandising. In this set we attack the problem as in Course 15, but extend the work, covering every form of business paper, orders, bills, drafts, bills of lading, bank checks, notes payable, notes receivable, insurance policies, and close the work with Statements covering Trading, Profit and Loss, Resources and Liabilities, Partnerships, etc. *Eight hours a week practice work, second term. Required of Freshmen, Business Administration.*
Professor HOWERTON.

17. **Bookkeeping.**—Reviews, with general bookkeeping and theory of cost accounting in manufacturing, farming, milling, etc. *Eight hours a week practice work, third term. Required of Freshmen, Business Administration.* Professor HOWERTON.

18. **Accounting.**—Study of theory and methods; financial statements and their interpretation; balance sheets; profit and loss; income; liquidation, etc. The student will be given much practice. *One hour theory, eight hours laboratory, first term. For Seniors in Business Administration. (Not given in* 1915-16.) Mr. ————.

19. **Cost Accounting.**—Elements of cost; overhead charges; methods of ascertaining costs; methods of reducing costs; the science of management. *One hour theory, eight hours laboratory, second term. For Seniors in Business Administration. (Not given in* 1915-16.)
Mr. ————.

20. **Auditing.**—Duties of auditors; methods of procedure; detection of fraud; writing of reports. *One hour theory, eight hours laboratory, third term. For Seniors in Business Administration. (Not given in* 1915-16.) Mr. ————.

22. **Bookkeeping and Farm Accounting.**—A combination course covering Farm Business Arithmetic, Farm Cost Accounting, and bookkeeping methods and forms adapted to the farm. Covers the Inventory, Cash Accounts, Individual crop, field and live stock accounts, household and farm budgets. Designed for farmers and teachers in Agricultural High Schools. *Three hours a week theory and practice for three terms.*
Professor HOWERTON.

BUSINESS METHODS.

23. **Business Methods.**—A beginning course introductory to the general subject of business, specially stressing the personal qualities necessary for success in business, the question of business ethics, and discussing

briefly the essential features of business organization. *Three hours per week for one term. Required of Business Administration Freshmen.*
Professor BOWEN.

24. **Business Methods.**—A continuation of Course 23, taking up more in detail the organization of business, various methods of organization, and some problems in buying, store management, etc. *Five hours per week for one term. Required of Business Administration Freshmen.*
Professor BOWEN.

25. **Business Law.**—A study of contracts, agency, negotiable instruments, tenancy, partnership, corporations, etc., covering briefly those points which every well informed man should know. *Three hours a week for three terms. Required of Business Administration Sophomores. Open to all.*
Professor BOWEN.

26. **Salesmanship.**—A practical course in "selling things" and services. This is based on practical and demonstrated psychology, and teaches from the experimental standpoint. Pupils have actual practice, and an opportunity to "learn to do by doing," and at the same time to "earn by doing." *Three hours a week for the first and second terms. Required of Sophomores, Business Administration.*
Professor HOWERTON.

27. **Business Organization.**—A study of methods of organization; handling of clerks and salesmen; office organization and equipment. *Three hours a week for one term. Required of Sophomores in Business Administration.*
Professor BOWEN.

28. **Business Organization and Credit Systems.**—A practical study of the internal features of typical business, differentiation of duties of various departments and individuals; economy in organization; charting; statistics; collection systems, credit information, etc. *Four hours for one term. For Seniors in Business Administration.*
Professor BOWEN.

29. **Real Estate and Insurance.**—Deeds, Mortgages, Abstracts; the Torrens system; leasing and renting; sales and options; building and loan companies; theory of realty values; taxes; insurance. *Four hours for one term. For Seniors in Business Administration.*
Professor BOWEN.

30. **Banking Methods and Collections.**—The internal organization, management and accounting methods of banks and trust companies; National and State banking laws; analysis of bank statements; credit and its uses; financing an enterprise. *Six hours for one term. For Seniors, Business Administration.*
Professor BOWEN.

CHEMISTRY.

Professor HAND.
Associate Professor SMITH.
Mr. GRAY.
Mr. SOLOMON.
Mr. GEIGER.

General Arrangement of Courses.—The courses of undergraduate instruction offered by the Department of Chemistry are arranged, as far as possible, to meet the special requirements of students pursuing work in the several schools.

Those students who choose their major work from the courses given in the Schools of Agriculture and General Science may enter upon a special study of chemistry by electing courses in agricultural, general analytical, organic, or industrial chemistry.

A lecture and laboratory course in general inorganic chemistry are requirements for a degree taken in any school. Students who have taken special undergraduate work may arrange to continue their study after graduation. The elective courses and opportunities for graduate work will appeal more especially.

(a) To those who wish to enter upon careers as teachers of chemistry, or as analytical chemists.

(b) To students who desire some acquaintance with the principles, methods of work, and applications of the science on account of its especial bearing upon their major studies along other lines, as, for example, in agronomy, dairying, etc.

(c) To those who, after graduation, elect to do here work preliminary to a higher college or university degree, or who wish continued systematic training in chemistry with the more immediate view of becoming analysts.

OUTLINE OF COURSES.

1. **General Inorganic Chemistry.**—This course is required of all regular students of the Sophomore class, irrespective of the school under which they may be classified. The work is arranged for those who are just beginning the study of chemistry; but in view of the importance and general use of the principles of elementary physics in presenting the theoretical side, some degree of proficiency in the latter subject is a practical prerequisite. Alexander Smith's "A College Course in

Chemistry'' is used as a text-book in this course. Such subjects as the theories of solutions, ionization, chemical and physical equilibrium, etc., and their application to the study of chemical phenomena are considered as fully as the time will allow and the maturity of the students permit. *Required of all regular Sophomores in School of Agriculture, four lectures and recitations per week for three terms.*

Professor SMITH, Mr. SOLOMON, Mr. GRAY, and Mr. GEIGER.

2. **Organic Chemistry.**—This is a short introductory course for students electing work in the School of Agriculture. The limited time necessitates a restriction of the work most largely to the aliphatic bodies, which are of more immediate importance from the viewpoint of the student of agriculture. The course involves the usual discussion of the source, classification, properties, and important general syntheses of organic compounds. The alcohols, aldehydes, ethers, esters, vegetable acids, vegetable oils, and animal fats, sugars, starch, cellulose, etc., receive careful attention. *Lectures and recitations. Four hours per week, one term. Required of all Juniors in the School of Agriculture and in the Agricultural division, The School of Industrial Education.*

Professor HAND and Professor SMITH.

3. **Agricultural Chemistry.**—The work embraced in this course involves a discussion of the application of the principles of chemistry to agriculture. Courses 1, 2, and 5, are prerequisites. The following subjects, which receive attention in some detail, will give a general idea of the plan and scope of the work undertaken. Composition, classification, properties and formation of the organic compounds of plants, the inorganic parts of plants, composition of the atmosphere and its relation to plant growth, the chemistry and manufacture of commercial fertilizers and farm manures, the function and conservation of humus, general conservation of fertility, involving a study of the chemical composition of soils and general soil chemistry. Lectures and recitations. Reference books: Fraps' Principles of Agricultural Chemistry, Johnson's How Crops Grow and How Crops Feed, Johnson and Cameron's Elements of Agricultural Chemistry, Storer's Agriculture in Some of Its Relations with Chemistry, journals, reports, and bulletins of the Experiment Stations and Bureaus of the U. S. Department of Agriculture. *Four hours per week, one term. Required of all Juniors in School of Agriculture, and Agricultural Division of Industrial Education.*

Professor HAND.

4. **Agricultural Analysis.**—This course in analytical work suplements the instruction in agricultural chemistry, and the two courses are pursued at the same time. It is introduced by a short course in qualitative analysis. The work is practically confined to the analysis of soils and fertilizers. Lectures, recitations, and laboratory work. Courses 1, 2, 5, and 11 or 14 are prerequisites. *Five hours, one term. Required of all Juniors in School of Agriculture, and Agricultural Division of Industrial Education.* Professor SMITH and Mr. SOLOMON.

5. **A Laboratory Course in General Chemistry.**—Laboratory work to accompany course 1. The course is an elementary training for the beginner in the methods of work and reasoning by which the science has been built up. It is required necessarily of all those who take the lecture course. Much of this experimental work is of a quantitive character. Alexander Smith's "Laboratory Outline of General Chemistry" is used. *Required of all regular Sophomores in the School of Agriculture, four periods a week for three terms.*

Professor SMITH, Mr. GRAY, Mr. SOLOMON, and Mr. GEIGER.

6. **Agricultural Analysis.**—A continuation of course 4. Involves an additional and more careful study of the principles of analytical chemistry, and of special methods as applied to examination of soils, fertilizers, and agricultural products. Students taking their major work in agronomy may confine their studies more especially to soil chemistry, while those taking special courses in dairying may devote this time to dairy chemistry and the general examination of dairy products. *Lectures three hours a week and laboratory work, at least ten hours a week, one term, Senior year. Elective for Seniors in School of Agriculture.* Professor HAND and Professor SMITH.

7. **Industrial Chemistry.**—A general discussion of the chemistry of industrial products. Topics may be selected from the following suggestive list: Liquid, solid, and gaseous fuels, water for domestic and industrious purposes, soaps, glycerine, matches, oils and fats, the fertilizer industries, explosives, pigments and mixed paints, varnishes, dyes, bleaching, lime, cements, clays, manufacture of glass and porcelain enameling, cast iron, steel, and the metallurgy of the more useful metals. *Three lectures a week for one term. Required for mechanical engineering Seniors. Elective for students from other Schools.*

Professor HAND or Professor SMITH.

9. **Organic Preparations.**—A laboratory study of organic chemistry, involving practice in the determination of molecular weights by freezing-point, boiling-point, and vapor density methods, the analysis of organic compounds and preparation of pure organic bodies. This course is taken in connection with lecture course 17. Gattermann's Die Praxis des Organischen Chemikers is used as a laboratory manual. Levy-Bistrzychi's Organische Preparate, Coen's Organic Chemistry for advanced students, and other well known manuals are available. *Eight hours laboratory work a week for two terms. Elective for students in the Schools of General Science and Agriculture.* Professor SMITH.

10. **Analytical Chemistry.**—A study of the methods, theories, and calculations of analytical chemistry, with lectures and references upon topics of physical chemistry. Discussions of the desirability of methods in special analytical work. Accurate determinations of specific gravity, molecular weight determinations by boiling-point, freezing-point, and vapor density methods, calibration of volumetric instruments, preparation of accurately standardized solutions of acids and alkalies, and of volumetric solutions in general. Laboratory practice in graded exer-

cises in quantitative separations and estimations. *Lectures, recitations and laboratory work, five hours per week for one term, and three hours per week for two terms. Laboratory work not less than ten hours per week. Elective for students in General Science course, and for Seniors in School of Agriculture. Courses* 1, 5, *and* 11 *or* 15 *are prerequisites.*

Professor HAND and Professor SMITH.

11. **Qualitative Analysis.**—A lecture and laboratory course dealing with the separation and identification of the more common anions and cations, treated in connection with elementary discussions of theories of solutions, ionization, chemical and physical equilibrium, etc. *Required of Civil and Mining Juniors. Two lectures and six hours laboratory work, one term.*

Professor SMITH and Mr. GRAY.

13. **Engineering Chemistry.**—A course in quantitive analytical work dealing with the examination of materials of more immediate interest to mechanical engineers. Students may select their work from such subjects, e. g., as proximate analysis of coal, calorific value of liquid and solid fuels, using two or three forms of calorimeters, calorific value of gaseous fuels, the analysis of flue gases, examination of water for boiler purposes, analysis of boiler scale, cylinder deposits, cast iron, steel, lubricating oils, alloys, cements, fire-clay, ores, slags, etc. The course is introduced usually by the analysis of a few pure salts. *Courses* 1 *and* 5 *are prerequisite. Required of mechanical engineering Seniors, two lectures and three laboratory periods first term, two lectures and six laboratory periods second term, and five lectures and five laboratory hours, third term. See Course* 7, *Industrial Chemistry.*

Professor HAND or Professor SMITH.

14. **Organic Preparations.**—General laboratory practice to accompany the lecture course in organic chemistry. Includes the usual work for beginners in the subject, as, for example, the determination of melting and boiling points, fractional distillation, and the synthesis and laboratory study of a few types of important classes of organic bodies, etc. Courses 1, 2, and 5, are prerequisites. Course 11 may be substituted for 14. *Five laboratory periods a week for one term. Required of all Juniors in the School of Agriculture and in the Agricultural division of the School of Industrial Education.*

Professor SMITH and Mr. SOLOMON.

17. **Organic Chemistry.**—A course in General Organic Chemistry including aliphatic and carbocyclic compounds. The course is intended primarily for students in the School of General Science electing courses in chemistry. The course includes a discussion of the general principles of organic chemistry. Perkin & Kippling's Organic Chemistry is recommended for use in connection with the lectures. *Five lectures a week for two terms. Elective for students in the School of General Science. May be elected also by students in the school of Agriculture.*

Professor HAND.

18. **Elementary Agricultural Chemistry.**—A very elementary introduction to general chemistry followed by discussion of the chemistry of plant and animal life, feeding stuffs, fertilizers, and soils. *Four lectures and four laboratory periods, first term, second year in the Short Course in Agriculture.* Professor HAND.

19. **Qualitative Analysis.**—A systematic study of the principles of qualitative analysis, involving osmotic pressure and the theory of reduction, ionization, electrical conductivity, the equilibrium laws, complex ions, oxidation, etc. Qualitative Analysis, volumes I and II, by Julius Stieglitz, is used as a text. *Five lectures and nine laboratory hours a week for two terms. Elective for students in the School of General Science.* Professor HAND and Professor SMITH.

20. **General Inorganic Chemistry.**—Course for students in School of Engineering and General Science. Same as course 1 except as to time allowed for subject. *Five lectures a week for two terms. Required of all Sophomores in School of Engineering and General Science.*
Professor SMITH, Mr. SOLOMON, and Mr. GRAY.

21. **General Inorganic Chemistry.**—Same as course 1 except as to time given subject. *Three lectures a week for three terms. Required of all Sophomores in School of Industrial Education.*
Professor SMITH, Mr. SOLOMON, and Mr. GRAY.

22. **A Laboratory Course in General Chemistry.**—A course of laboratory work and study to accompany course 20. Same as course 5 except as to time. *Four hours per week for two terms. Required of Sophomores in School of Engineering and General Science.*
Professor SMITH, Mr. SOLOMON, and Mr. GRAY.

23. **A Laboratory Course in General Chemistry.**—To accompany course 21, same as course 5 except as to time. *Four hours a week for three terms. Required of Sophomores in School of Industrial Education.*
Professor SMITH, Mr. SOLOMON, and Mr. GRAY.

24. **Industrial Chemistry.**—A continuation of course 7. *Three lectures weekly for one term. Elective.*
Professor HAND or Professor SMITH.

25. **Engineering Chemistry.**—A continuation of course 13 with lectures and laboratory work in the metallography of iron, steel, and a few alloys. *Two lectures and fire hours laboratory practice for one term. Required of mechanical engineering Seniors.*
Professor HAND or Professor SMITH.

26. **Advanced Agricultural Analysis.**—Theoretical foundations of analytical chemistry. A special study of topics in agricultural analysis. *Lectures and assigned subjects of study. Major for graduate students.*

27. **Advanced Analytical Chemistry.**—Gravimetric and volumetric analysis. Electro-analysis. Chemical calculations. Theories of chemistry applied to analytical work. *Reviews of literature on assigned topics. Major for graduate students.*

28. **Advanced Organic Chemistry.**—A review of general inorganic chemistry. Study of advanced organic chemistry. Organic analysis. Organic preparations, and assigned study of special topics.

Summer Course.—The Chemical laboratories are open throughout the year, and students who may wish to extend or continue their regular courses may do so in many cases during the summer school. Teachers in high school, agricultural high schools, and students looking forward to careers as physicians or pharmacists may find it desirable to take advantage of the facilities of the department during the summer school and the vacation following it.

Advanced Work in Chemistry.—In addition to the undergraduate course of instruction, the Department of Chemistry offers also the graduate students courses in analytical, agricultural, and organic chemistry, as major and minor for the M. Sc. degree. The general nature and scope of the work is arranged by special agreement. The work is designed mainly for two classes of students:

(1) Those who wish to enter as soon as possible upon professional university courses with a view to becoming candidates for the higher degrees. The advantages which the department can offer for this preparatory work are thought desirable.

(2) Those who wish to secure accurate training in analytical chemistry with the immediate view of securing positions as analytical chemists.

No time limit is set for the completion of the requirements, though two years of laboratory practice are usually necessary.

Library.—The library of the Department of Chemistry contains complete sets of the Annalen der Chemie, Berichte d. deutsch. Chem. Gesellschaft, Jr. fur prak. Chemie, Zeit. f. anal. Chemie, Journal of the Chemical Society, Journal of the Society of Chemical Industry, American Chemical Journal, Journals of the Am. Chem. Society, Experiment Station Record, Jr. anorganische Chemie, and Chemische Centralblatt. The more important chemical journals are regularly received. The library contains also hand-books, and dictionaries of inorganic, organic, and industrial chemistry, and a large number of reference and

text books relating to the various branches of pure and applied chemistry.

CIVIL ENGINEERING AND DRAWING.

Professor GAY.
Associate Professor FREEMAN.
Mr. ROBERTSON.

The course in Civil Engineering is designed to meet the need for instruction in the fundamentals of the various branches of Civil Engineering, rather than to provide extensive specialization in any one branch.

With the exception of Drawing and Shop Work, the engineering subjects are not presented before the third year the first two years being devoted to the necessary preparation in Mathematics, English, Physics, Chemistry, History and allied subjects. During the third and fourth years the principal emphasis is placed on the engineering subjects such as Surveying, both Plane and Railroad, Mechanics (Elementary, Applied, and Analytical), Hydraulics, Highway Engineering, Drainage Engineering, Roofs and Bridges, and the allied subjects of Geology and Mineralogy.

Owing to increasing public need, the Civil Engineering Department is listing for the first time, certain lines of study open only to students who have completed the undergraduate work in Civil Engineering, or to others whose qualifications are such as will enable them to successfully pursue the work. These courses will cover the fundamentals of a few of the civil engineering branches, such as Structural Design, Water Supply Engineering, Sanitary Engineering, Highway Engineering, and Railroad Engineering. Some work in Architecture is also listed.

While the courses shown at this place in the catalog are those under the direction of the Civil Engineering Department; it is entirely possible for the graduate student to select a portion of his work in the other Departments of the Engineering School; and it is presumed that practically all students taking work after graduation will wish to avail themselves of the privilege. For instance, the student of Water Supply or Sanitary Engineering will be interested in courses in Steam Engines

and Boilers given by the Mechanical Engineering Department; Students of Water Power Engineering will be interested in work given by the Electrical and Mechanical Departments.

Professional Degree.—The professional degree of Civil Engineer will be granted to any graduate student who shall complete two years of resident study of a character approved by Faculty of the Engineering School. It is expected that the time devoted to this work will demand the attention of the student for the major part of the day, and those holding teaching fellowships will be unable to complete the required work in two years.

CIVIL ENGINEERING.

21. **Plane Surveying.**—This course is designed to provide instruction in the ordinary methods of land and engineering surveying. The subjects treated are description and adjustment of surveying and engineering field instruments, field methods of land surveying, determination of error of closure, balancing surveys, computation of areas and plotting from field notes, differential and profile leveling, heights and distances by stadia measurements, determination of the true meridian by the pole star, and thence the magnetic declination. Prerequisite, Trigonometry. Text-book: Raymond's Plane Surveying. *Five hours per week, first term. Required of Civil Engineering Juniors.*

Professor GAY and Mr. ROBERTSON.

22. **Surveying Field Work.**—This course accompanies the course in Plane Surveying, and gives abundant practice in the various field operations, and in plotting. *Nine hours per week, first term. Required of Civil Engineering Juniors.* Professor GAY and Mr. ROBERTSON.

23. **Railroad Surveying.**—This course is designed to give a training in the field methods of railroad surveying, together with the usual office work of computation and plotting. The subjects covered include a discussion of the various kinds of railroad surveys and their purposes, alignment, earthwork computation, etc. Text-book: Searles & Ives' Field Engineering. *Five hours per week, second term. Required of Civil Engineering Juniors.* Mr. ROBERTSON.

24. **Railroad Field Work.**—This course supplements that of Railroad Surveying. Each class is required to make a survey and the necessary maps for a short line of railroad. *Nine hours per week, third term. Required of Civil Engineering Juniors.*

Professor GAY and Mr. ROBERTSON.

25. **Mapping.**—Practical work in the plotting of land and topographic surveys. *Nine hours per week, second term. Required of Civil Engineering Juniors.* Mr. ROBERTSON.

27. **Highway Engineering.**—This course is intended to give a knowledge of the construction and maintenance of earth and stone roads, and the various street pavements. The emphasis is placed, however, upon those types of roads which are suitable for rural communities and small towns. Text-book: Blanchard's Elements of Highway Engineering. *Required of Civil Engineering Juniors. Four hours per week, third term.* Mr. ROBERTSON.

28 and 28a. **Strength of Materials.**—A study of the strength and elastic properties of the various materials used in engineering construction. The theory of the strength and behavior, under load, of beams, columns, shafts, pipe, riveted joints, etc. Text-book: Boyd's Strength of Materials. *Five hours per week, first term; three hours per week, second term. Required of all Civil Engineering Seniors.*

Professor GAY.

30. **Field Work.**—This course supplements course 60, and gives added proficiency in the handling of surveying instruments as well as practice in solar and other observations for determination of meridian, time, latitude, etc. *Five hours per week, first term. Required of all Civil Engineering Seniors.* Professor GAY and Mr. ROBERTSON.

31. **Roofs and Bridges.**—In the class room the more common forms of roof and bridge trusses are studied and complete analyses of stresses due to truss weight and applied loads are worked out, analytical methods of solution being employed. Text-book: Merriman's Roof and Bridges, Part I. *Five hours per week, third term. Required of all Civil Engineering Seniors.* Professor GAY.

32. **Graphics.**—A course of drafting, accompanying and illustrating course 57 in Graphic Statics. *Six hours per week, second term. Required of all Civil Engineering Seniors.* Professor GAY.

34. **Advanced Graphics.**—A continuation of the course in Graphics. *Six hours per week, third term. Required of Civil Engineering Seniors.*

Professor GAY.

19. **Drainage Engineering.**—The object of this course is to give the student a knowledge of the fundmentals of drainage work for land reclamation, and of the laws of hydraulics underlying such work. Text-books: Merriman's Elements of Hydraulics, and Elliott's Engineering for Land Drainage. *Five hours per week, third term. Required of Civil Engineering Seniors.* Professor GAY.

35. **Surveying.**—A condensed course covering the general principles of plane surveying, and the use of surveying instruments. Text-book: Pence & Ketchum's Surveying Manual. *Two hours per week, first term. Required of Mechanical and Electrical Seniors.*

Mr. ROBERTSON.

36. **Field Work.**—A course of practice in the handling of surveying instruments. To accompany course 35 in Surveying. *Three hours per week, first term. Required of Mechanical and Electrical Seniors.*

Mr. ROBERTSON.

38. **Civil Engineering.**—A course designed for Electrical Engineering students, and covering the discussion of some phases of Civil Engineering with which they will come in contact; such as hydrography, including rain-fall and run-off, the location of hydro-electric works, etc. Text-book: Mead's Water Power Engineering. *Five hours per week, third term. Required of Electrical Seniors.* Professor GAY.

57. **Graphic Statics.**—A course in the principles underlying graphic solution of bridge stresses. Text-book: Martin's Text-book of Mechanics, Vol. I. *Two hours per week, second term. Required of all Civil Engineering Seniors.* Professor GAY.

59. **Mechanics.**—A course in Elementary Mechanics covering in a brief way the composition and resolution of forces, the moment theorem, friction, center of gravity, moment of inertia, and such allied subjects as time will permit. Text-book: **Martin's Text-book of Mechanics,** Vol. I. *Four hours weekly, third term. Required of Civil Engineering Juniors.* Professor GAY.

60. **Practical Astronomy.**—A course sufficiently broad to cover those astronomical essentials underlying the determination of meridian, latitude, and time, as ordinarily required of practicing engineers. Text-book: Hosmer's Text-book on Practical Astronomy. *Two hours weekly first term. Required of Civil Engineering Seniors.*
Professor GAY.

70. **Pavements.**—A course devoted to the detailed study of bituminous, stone block, brick, wood block, concrete and other pavements in common use under city traffic conditions. The course will also treat of the maintenance of pavements, and the elements of city planning. 50 *recitations. Open to graduates.*

71. **Masonry Construction.**—A study of the various materials in common use in masonry construction, the principles of foundation design and construction, and allied problems. 50 *recitations. Open to graduates.*

72. **Concrete.**—A study of concrete as a building material, including proper proportioning, selecting of materials, properties of concrete, uses and methods of use; followed by a study of reinforced concrete, including theory of design, uses, properties, and examination of typical designs. This is supplemented by drafting room work in design. 60 *recitations and* 60 *hours drafting. Open to graduates.*

73. **Hydraulics.**—A course covering theoretical hydraulics, hydrostatics, flow of water through orifices, pipes and channels, and over weirs, and a consideration of the effects of water pressure as applied to hydraulic motors. 60 *recitations. Open to graduates.*

74. **Structural Design.**—A discussion of the principles underlying design of structures, together with drafting room practice in design and detailing. 20 *recitations and* 180 *drafting room hours. Open to graduates.*

75. **Higher Structures.**—A study of the stresses in cantilever, draw and suspension spans and statically indeterminate structures. 40 *recitations. Open to graduates.*

76. **Sewerage.**—The principles of sewer design and sewage disposal. 50 *recitations. Open to graduates.*

77. **Water Supply.**—A study of the conditions surrounding the impounding and delivery of public water supplies, including amount and quality of supply, design of impounding systems and distribution systems, and the purification of water. 75 *recitations. Open to graduates.*

78. **Water Power.**—This course covers the principles governing the collection and use of water in producing power, including the investigation of watersheds, collection and storage of water, design of controlling works, etc., but not covering the design of the mechanical or electrical features of generating stations. 30 *recitations. Open to graduates.*

79. **Dams and Retaining Walls.**—Principles of earth and water pressure, and of the design of structures to withstand them. 30 *recitations. Open to graduates.*

80. **Railroad Economics.**—A study of the effect of grade and curvature on operating expenses, and the arrangement of the same to obtain economical operation. 30 *recitations and* 45 *hours in drafting room. Open to graduates.*

81. **Contracts and Specifications.**—A course covering the principles of specification writing and the elements of law underlying construction contracts. 30 *recitations. Open to graduates.*

DRAWING.

40. **Free-Hand Drawing.**—This is an elementary course, having as its objects the training of the eye to see correctly and to observe closely, and of the hand in easy and precise mainpulation. The work consists in drawing straight lines and curves, outlines of objects from the blackboard, object drawing in outline, and perspection and shading. *Four hours per week, first term. Required of all Freshmen.*

Associate Professor FREEMAN.

41. **Mechanical Sketching.**—A continuation of course 40, special practice being afforded in sketching mechanical details and in free-hand lettering. Text-book: French's Engineering Drawing. *Six hours per week, second term. Required of Engineering Freshmen.*

Associate Professor FREEMAN.

41a. **Mechanical Sketching.**—A course in free-hand lettering, and sketching from machine parts and wood shop models. *Six hours per week, first term. Required of second year training course students.*

Mr. MONTGOMERY.

43. **Mechanical Drawing.**—Use of drawing instruments, geometrical constructions, projections of parts of machines, standard bolts, etc., free-hand lettering. Text-book: French's Engineering Drawing. *Six*

hours per week, third term. Required of Engineering Freshmen.
Associate Professor FREEMAN.

45. **Mechanical Sketching.**—Free-hand lettering; sketching from machine parts. Working drawings of models to be made in manual training course in wood-work. *Four hours per week, second term. Required of General Science and Industrial Education Freshmen.*
Associate Professor FREEMAN and Mr. ROBERTSON.

46. **Mechanical Drawing.**—Same as course 43, except for time. *Four hours per week, third term. Required of General Science Freshmen.*
Associate Professor FREEMAN and Mr. ROBERTSON.

47. **Mechanical Sketching.**—Same as course 41, except for time. *Two hours per week, second term. Required of Agricultural Freshmen.*
Mr. ROBERTSON.

48-49-50. **Projection Drawing.**—Elementary instruction in descriptive geometry and projection drawing, with especial consideration of the needs of mechanical draftsmen. The course is intended to give thorough training in those portions of the subject which constitute the foundation of drawing. Text-book: French's Engineering Drawing. *Four hours per week, three terms. Required of Engineering Sophomores.*
Associate Professor FREEMAN.

61. **Blackboard Illustrating.**—A course designed to increase the efficiency of teachers in demonstrating class room work. *Four hours per week, third term. Required of all Industrial Education Freshmen.*
Associate Professor FREEMAN.

62. **Mechanical Drawing.**—Same as course 43 except for time. *One recitation and six hours drafting per week, second term. Required of Industrial Education Sophomores electing Manual Training.*
Associate Professor FREEMAN and Mr. ROBERTSON.

63. **Working Drawings.**—Graphical representation of objects, descriptive titles, figure dimensions, and specifications in regard to materials, finsh, etc. Tracing and blue printing. Machine and forge shop exercises used to present subject. *One recitation and six hours drafting per week, first term. Required of all Industrial Education Seniors electing Manual Training.* Associate Professor FREEMAN.

64. **Pictorial Representation.**—Comprising isometric, oblique, and cabinet drawing. Wood shop exercises and cabinet drawings used to illustrate the course. *One recitation and six hours drafting per week, second term. Required of Industrial Education Seniors electing Manual Training.* Associate Professor FREEMAN.

65. **Applied Design.**—Planned to acquaint the student with the requirements of applied design from an artistic standpoint, for commercial purposes. Proportion, color and use. Pen and ink rendering, wash drawings, water color work. Original designs required. *One recitation*

and six hours drawing per week, third term. Required of Industrial Education Seniors electing Manual Training.

Associate Professor FREEMAN.

The following courses are open to graduates or others prepared to take them:

82. Shades, Shadows and Perspective Drawing.

83. Advanced Freehand Drawing.

84. Pen and Ink Rendering.

85. Water Color Drawing.

86. Industrial Building.—Application of principles of Architectural Design to Power plants, bridges and other industrial buildings.

87. Architectural Design.—A course beginning with the elementary study of the classic orders of Architecture and problems illustrating their use; and advancing to a consideration of architectural composition and principles.

Students' Drawing Outfit.—All engineering students are advised to provide themselves with the following drawing instruments and materials:

1 Nine-piece set of Drawing Instruments in case.
1 Pearwood T-square, 18 in.
1 Pair Celluloid Triangles—6''-45°; 8''-30°x60°.
1 12 in. Triangular Boxwood Scale.
1 Irregular Celluloid Curve.
1 5 in. Celluloid Protractor.
1 Koh-i-Noor Pencil, 4H.
1 Penholder and half dozen Assorted Pens.
1 3-4 oz. Bottle Black Drawing Ink.
1 Towers' ''Multiplex'' Eraser, 1-20 lb.
1 Tack Lifter and File.
1 Drawing Board, of size specified.

Equipment.—The Department of Civil Engineerig is well equipped for all kinds of field work; the instrumental outfit consisting of 8 engineer's transits, 2 solar attachments, 1 plain engineer's transit, 1 light mountain and mining transit, 1 theodolite, 7 wye levels, 3 dumpy levels, 1 builder's level, 4 hand levels, 2 vernier compasses, 1 pocket compass, 1 plane table, 1 stadia rod, leveling rods, range poles, chains, tapes, etc.

The two drawing rooms are large and well lighted, and furnished with suitable desks and secure lockers. Each student is furnished with a locker in which his drawing instruments may be left with perfect safety. The instructor's desk is supplied with a great variety of drawing instruments, not

included in the student's outfit, and these are for students' use, as occasion may demand. A modern and complete blue-printing outfit forms a part of the equipment.

Library.—The department library contains many standard works along all lines included in the courses of instruction outlined above, and this collection is constantly being added to. These books are for students' use for reference at all times.

CIVIL GOVERNMENT.

See History and Civics.

CLINICS.

See Veterinary Science.

COTTON CLASSING.

1. **Cotton Classing.**—This course is very comprehensive; hundreds of samples are used to illustrate practically the many grades and varieties of cotton grown. Samples from various districts are used to show the influence of soils, also to prove the difference in values. Practical tests are made in every laboratory period to distinguish strength, fineness, character. The determining factor for spinning quality is given the most careful consideration as this is the determining value factor, and one that ought to be thoroughly understood by the producer, so that he may strive for the best production and the highest possible returns. A thorough course is given in business methods, and the various forms used in cotton brokerage are used to illustrate. Foreign cottons are considered along with the American cottons, and the qualities of each are stressed. This course is considered of great importance because, the producer of cotton knows the least about the actual value of this the biggest crop of any produced in the South. This course is required of all students in business administration, and agricultural students who elect to take a course in cotton classing. *Four hours laboratory, third term, required of Sophomores in Business Administration.*

DAIRY HUSBANDRY.

Professor MOORE.
Mr. GULLEDGE.

It is the purpose of this department to give such instruction to the students taking the courses as will be most helpful

in preparing them for their life-work. Instruction is given by the use of systematic lectures suitable text-books, and apt experiments. Practical work is given in the farm dairy, in the creamery, and in the dairy barns.

2. **Milk and Its Products.**—This course deals with the composition of milk, butter, and cheese; the use of the Babcock test; the different methods of handling milk; methods of creaming; the proper conditions for ripening and churning cream; and the making of butter. *Three hours a week recitation and two hours a week practical, first term. Required of Agricultural Sophomores and Agricultural Division of Industrial Education Sophomores.*

Professor MOORE and Mr. GULLEDGE.

4. **Testing Milk and Its Products.**—Methods of testing milk, cream, butter, cheese, and ice cream; methods of detecting adulterations of milk; fermentation tests; determination of acidity in milk; methods of pasteurization and sterilization. *Four hours a week recitation and four hours a week practical, second term. Required of Special Dairy Seniors.*

Professor MOORE.

5. **Milk Production.**—A study of individual animals showing the relation of the cow and the herd to the profits derived from milk production; the requirements necessary for the establishment and maintenance of a dairy herd of the highest efficiency. A comparison of different rations for economical milk production; the influence of home grown feeds on the economy of the ration; organization of a dairy farm and a study of the production and disposal of the milk at the greatest profit. *Four hours a week recitation, and four hours a week practical, second term. Required of Agricultural Juniors.*

Professor MOORE and Mr. GULLEDGE.

6. **Butter and Cheese Making.**—Principles and practice of creamery butter-making, pasteurization of cream for butter-making; propagation of starters; cream ripening; churning, washing, salting, working, packing, and marketing butter; defects of butter; moisture tests; composition and score of butter; calculation of over-run. The latter part of the term will be devoted to the manufacture of cheese, practice in ripening and setting the milk; cooking, cheddaring, milling, and salting the curds; and pressing, curing, and scoring the cheese. *Three hours a week recitation and six hours a week practical, second term. Required of Special Dairy Seniors.*

Professor MOORE and Mr. GULLEDGE.

7. **Advanced Dairying.**—Methods of handling milk and cream for consumption, standardizing, modifying, and bottling. Ice-cream making. Federal and state laws and milk inspection. The study of climate, soils, and market conditions on the development of special lines in dairying. A study of experiment station literature. Prerequisite: Dairy Husbandry

2, 4, and 5. *Three hours a week recitation and six hours a week practical, third term. Required of Special Dairy Seniors.*

Professor MOORE.

9. **Practical Dairying.**—This course is arranged to give the student practical training in the special line or lines of work in which he desires to become proficient. Lectures and assigned reading will be given in addition to the laboratory work. Tests of the student's progress will be given from time to time as necessity may require. Hours and credits will be arranged. *Not less than five course hours for one term, third term. Required of Special Dairy Seniors.*

Professor MOORE and Mr. GULLEDGE.

10. **Dairy Farming.**—A very practical course on the feed, care, selection, and management of the dairy cow. Keeping suitable records, making the Babcock test; raising calves for the dairy. *Three hours a week recitation and two hours a week practical, third term. Required of first year students taking Short Course in Agriculture.*

Mr. GULLEDGE.

11. **Farm Butter-Making.**—The care and handling of milk on the farm; different methods of separation; the ripening of cream, the making of butter. *Three hours a week theory, and two hours a week practical, second term. Required of second year students taking the Short Course in Agriculture.* Mr. GULLEDGE.

12. **Dairy Farming.**—This is similar to course 10, and is intended especially to meet the needs of those desiring a very elementary and practical course in this subject. *Five hours a week recitation and four hours a week practical, for the six weeks summer term.*

Mr. GULLEDGE.

13. **Farm Butter-Making.**—This course is similar to number 11. *Five hours a week recitation and four hours a week practical for the six weeks summer term.* Mr. GULLEDGE.

Graduate Course.—In addition to the undergraduate course of instruction, outlined above, the Dairy Department offers to graduate students of this and other colleges, opportunities for professional training and original investigation. The special line of study will be left largely to the selection of the student, subject to the approval of the faculty. Such students will take part in the experiments in progress, and after sufficient experience, will conduct independent investigations. For the completion of this course the student will be required to pursue a course of study, approved by a committee of the facutly, equivalent to the work of one year of graduate study.

Equipment.—The dairy building and dairy barn are models of their kind, and will compare favorably with such buildings

found anywhere in the South. The dairy building is equipped with the most modern and improved machinery necessary for successful dairy and creamery work, including the leading makes of testers, separators, churns, butter workers, pasteurizers, and other machinery.

In the barn we have representatives of the Jersey, Holstein-Friesian and Ayrshire breeds of cattle. There are also about seventy-five head of grade cows that are used to illustrate the theories taught in the class room regarding the selection, breeding, feeding, and handling of dairy animals.

DRAINING AND TERRACING.

See Agricultural Engineering.

DRAWING.

See Civil Engineering and Drawing.

ELECTRICAL ENGINEERING.

Professor PATTERSON.
Mr. PETERSON.

The object of the course in Electrical Engineering is to give such training as shall enable the graduate to deal intelligently with electrical problems likely to be presented to the practical engineer, and to enter successfully into practical work in those branches of engineering in which electricity plays the principal part. With this in view, principles rather than details are emphasized, and these principles are developed and fixed by the free use of concrete problems, as well as by laboratory experiments and tests.

In common with the other engineering courses, the first years are largely devoted to the study of physical science and mathematics, and the attempt is made to familiarize the student with both the analytical and graphical methods of treating physical problems. The purely electrical work extends through the third and fourth years, that of the third year being devoted

to the more elementary theory and to the practice of the simpler tests and measurements in direct current machinery, while the study of the fourth year is largely directed toward alternating currents and alternating current machinery and the more complicated tests of the alternating current and dynamo laboratory.

Electrical methods are being adopted in a constanly enlarging field, and this is steadily increasing the demand for graduates of technical courses. To the earlier use of electricity for lighting, have been added its use for power in a very great variety of industries. The driving of machine shops by electricity, although it has become the standard method and is being installed in all new shops of importance, has yet a wide field for development. It furnishes an ideal course of power in the textile industries, of such great importance in the economic development of our state.

Electric railroading has already become one of the most important industries in which electricity is involved, and with substitution of electricity upon steam roads which is now begun, this application of electric power will grow very rapidly. In the telephone industry, both the manufacturing and operating companies are calling for technical graduates in ever larger numbers, and the engineering departments of this industry offer a most interesting profession.

To the electrical engineering graduates are opened several different lines of work. The electrical manufacturers have long required many men for their engineering, commercial and manufacturing departments; there are also positions with construction and commercial companies, and more recently larger demand is coming for men from the companies operating lighting and power plants.

The courses given in this department are as follows:

1. **Electricity and Magnetism.**—This course follows the Electricity and Magnetism of the Sophomore year, but instruction is given more in detail, and with particular reference to the needs of the student in Electrical Engineering. It comprises a study of the theory of magnetism, a study of electro-magnets and the magnetism of iron as applied to dynamo-electric machinery, and a preliminary study of the dynamo, its parts and construction, and the principles underlying the construction and operation of dynamos. *Lectures and recitations, five hours a week for one term, laboratory practice three hours a week for one*

term. Required of Electrical Engineering Juniors. Prerequisite: Sophomore Physics, Sophomore Mathematics. Lectures and recitations, Professor PATTERSON. *Laboratory practice,* Professor PATTERSON and Mr. PETERSON.

2. **Dynamo Electric Machinery.**—This course comprises a study of the theory and operation of direct current dynamos as generators and motors, including series, shunt and compound wound machines, the theory of commutation, parallel operation, speed control of motors, power losses in generators and motors, efficiencies, characteristic curves, together with a discussion of the principles of generator and motor testing. *Lectures and recitations, five hours a week for one term; laboratory practice, three hours a week for one term. Required of Electrical Engineering Juniors. Prerequisite: Course* 1. *Lectures and recitations,* Professor PATTERSON. *Laboratory practice,* Professor PATTERSON and Mr. PETERSON.

3. **Electrical Engineering.**—A study of the applications of direct currents for the distribution of power, including a study of distribution systems of wiring, and regulating apparatus, storage batteries, and an elementary study of the principles of photometry and electric lighting. *Lectures and recitations, five hours a week for one term; laboratory practice, three hours a week for one term. Required of Electrical Engineering Juniors. Prerequisites: Courses* 1 *and* 2. *Lectures and recitations,* Professor PATTERSON. *Laboratory practice,* Professor PATTERSON and Mr. PETERSON.

5. **Alternating Currents.**—This course includes a study, by both graphical and analytical methods, of the theory of alternating currents; it includes the sine wave and its applications to electric circuits, other wave forms and the quantities which affect wave forms; a study of the various types of alternating current circuits containing impedances in series and parallel combinations; the measurement of power in single and polyphase circuits, and the theory, operation, efficiency, and applications of the transformer. *Lectures and recitations, five hours a week for one term: laboratory practice, six hours a week for one term. Required of Electrical Engineering Seniors. Prerequisites: Courses* 1, 2, *and* 3. *Lectures and recitations,* Professor PATTERSON. *Laboratory practice,* Professor PATTERSON and Mr. PETERSON.

6. **Alternating Current Generators and Motors.**—A study of the theory, construction, and operation of all types of alternating current generators, of induction and synchronous motors, of alternating current regulators, rotary converters and applications, and of the newer types of repulsion and series alternating current motors. As experimental work in the laboratory is concurrent with this course, it also includes a discussion of the methods of testing alternating current apparatus. *Lectures and recitations, five hours a week for one term: laboratory practice, six hours a week for one term. Required of Electrical Engineering Seniors. Prerequisite: Course* 5. *Lectures and recitations,*

Professor PATTERSON. *Laboratory practice,* Professor PATTERSON and Mr. PETERSON.

7. **Power Generation, Transmission and Distribution.**—This course comprises a study of generating apparatus in lighting and power plants, a study of station equipment, switch-boards and appliances, lighting protection and line construction. Technical articles in the engineering periodicals are largely used as reference texts in this course, and each student is assigned several topics during the term along the lines suggested above, and required to submit abstracts of articles on these topics before the class. *Lectures and recitations, five hours a week for one term: laboratory practice, six hours a week for one term. Required of Electrical Engineering Seniors. Prerequisite: Course* 6. *Lectures and recitations,* Professor PATTERSON. *Laboratory practice,* Professor PATTERSON and Mr. PETERSON.

8. **Direct Current Machinery.**—The work of the Sophomore year in fundamental electrical and magnetic laws is first reviewed and extended to their application to the various types of direct current machinery and auxiliary apparatus. A study is then made of the details of construction, efficiency of operation and practical applications of constant potential and constant current generators, compound, shunt and series motors, and controlling apparatus. The study of a text-book is supplemented by numerous practical problems. *Lectures and recitations, five hours a week for one and one-half terms: laboratory practice, three hours a week for one and one-half terms. Required of Mechanical Engineering Juniors. Prerequisites: Sophomore Physics, Sophomore Mathematics.* Mr. PETERSON.

9. **Alternating Current Machinery.**—This is a practical course in the theory and application of alternating currents, designed for those not specializing in Electrical Engineering, but whose future work will of necessity bring them into greater or less contact with electrical power and appliances. A brief study is first made of the application of the sine wave to alternating currents and circuits containing resistance, inductance and capacity in series and in multiple. A study is then made of the construction, principles of operation, and behavior of single and polyphase generators and motors, the transformer, the induction motor, the synchronous motor, and their application and adaptability to the shop, the factory and the textile mill. *Lectures and recitations, five hours a week for one and one-half terms: laboratory practice, three hours a week for one and one-half terms. Required of Mechanical Engineering Juniors. Prerequisite: Course* 8. Mr. PETERSON.

Summer School.—Subject to restrictions governing the summer school, the department will offer any of the above courses, provided a class of six properly qualified to take the work registers with the director of the summer school before same opens. It should be remembered that in order to finish one term's work in six weeks, a student must actually put in double time both in recitations and in laboratory.

Equipment.—The department has excellent facilities for practical experimental work. The apparatus includes 48 generators and motors of various makes and sizes from 40 horse power down, among them 110 volt and 220 volt direct and alternating current generators, series, shunt and compound wound, single, two or three phase motors, and more than 100 indicating ammeters, voltmeters, and wattmeters of the best types of American and foreign manufacture.

Some of the more important pieces of apparatus are a 4-unit set, consisting of two 7.5 KW. generators, capable of being connected for single, two, three, four or six-phase currents, whose rotating fields may be direct-connected and the position of whose armatures may be moved to give any desired angle of phase difference between their currents; each generator is direct-connected to a 15 HP. variable speed motor, both inter-pole, one of variable air-gap type, speed range 3 to 1, the other of variable field type, speed range the same; the entire set being mounted on a single bed-plate; a Special University Alternator, capable of being used as a generator, synchronous motor or induction motor for single, two or three phase currents, direct connected to a 220 volt, variable speed motor of wide range; a special revolving field, three phase, 2300 volt, 60 cycle generator, direct connected to 220 volt motor, all complete, with switchboard containing ammeters, volmeters, instrument transformers, watt-meters, ground detectors, and synchronizing apparatus, the whole serving as an illustration of a modern power plant installation, as well as being available for tests; a 150,000 volt special testing transformer; a 10,000 volt testing transformer; a mercury arc rectifier set complete; a resistance-in-armature type, variable speed induction motor; a direct connected set, consisting of two 6 KW. each, compound wound 125 volt dynamos, used as a balancer set on 220 volt mains to give 110 volts for laboratory use; a smaller set of 3 KW. capacity for studying the operation of shunt and compound generators in parallel, two generators on a three-wire system, efficiency tests by opposition methods, and various other purposes; a special rotary convertor for single, two or three phase use; transformers to change from two to three phase; auto-transformers from which a wide range of voltage may be obtained; a series arc

generator with regulating device; alternating series arc regulators; a three-meter photometer bar, with modern photometer and motor-driven lamp holder; a 20 KW. two phase generator, arranged for compounding, direct connected to a 30 HP. motor; two similar compound generators, arranged for parallel operation; 15 transformers of various makes up to10 KW. capacity, induction motors, single, two and three phase, and many other machines and pieces of apparatus of ordinary characteristics. A vibrating reed frequency meter, tachometer and speed counters, lamp banks, water rheostats and many other inductive and non-inductive resistance units are provided as auxiliary apparatus in testing the above mentioned machinery.

A complete standardizing outfit, consisting of standard potentiometer, standard cell, and standards of resistance, certified by the Physikalisch-Technische Reichsanstalt and by the National Bureau of Standards, is available for keeping the instruments of the laboratory in calibration, and has proved of service in checking instruments throughout the state. A 66 cell storage battery of 80 ampere-hour capacity with a few cells of heavier current, furnish steady conditions for instrument testing.

Standard ammeters and voltmeters for direct and alternating currents, a Kelvin balance, watthour meter calibrator, oscillograph, 18-inch induction coil, and two complete sets of wireless telegraph apparatus are other special pieces.

The college power plant, containing three direct connected, engine driven units (one 75 KW. 2300 volt, 60 cycle, three-phrase generator, with modern well equipped switch-board, one 75 KW. 220 volt compound-wound direct current generator, and another of similar type of 40 KW. capacity, with switch-boards for their control), a 7.5 KW. high speed, turbine driven unit, and also some 34 motors, aggregating 218 horse-power, used in the various departments of the college, are maintained by students of this department, and are at all times available for instruction. In addition, all extensions and repairs on the distribution system, and the wiring systems in all new buildings are installed by students, under the supervision of the department. The students are paid for their labor.

The lecture room is equipped with special alternating current apparatus, particularly for demonstrating phenomena of induction, and is lighted by carbon and flaming arc, Nernst, mercury vapor, carbon, and metallic filament incandescent lamps, many types of each being represented, and so arranged on separate circuits that the room may in turn be lighted by each means. A complete line of cooking utensils and other household applianecs are provided as an object lesson, as a means of business-getting for students who may enter the central station field.

Telephone Equipment.—Through the kindness of the Cumberland Telephone & Telegraph Company, the department is able to place before the students modern apparatus of a local energy telephone system, including the central switch-board; and although no course has been scheduled, each year several interested students on request have received regular instruction in the fundamental principles of telephone circuits and systems.

ETHICS.

See Philosophy and Sociology.

ENGLISH.

Professor WEDDELL.
Associate Professor TOWLES.
Assistant Professor GAINES.
Mr. SHANNON.
Mr. BUTTS.
Mr. BREWER.

The object of this department is to give the student a practical knowledge of English composition and of literature. The two purposes, utility and culture, are constantly kept in view; and the effort has been so to correlate the courses offered as to meet the needs of the students for training in direct, accurate, and vigorous expression, and for a wider acquaintance with the best literature.

The following courses are offered for the session of 1916-17:

1. **Advanced Rhetoric.**—The first three or four weeks are devoted to a review of English grammar. Then the four standard forms of dis-

course (narration, description, exposition, and argumentation) are theoretically discussed, and practice work in each form is presented before the class. Every student is required to write numerous short themes and one long theme on assigned subjects each term. When practicable, conferences are held with students during the entire session. Assigned reading of classics constitutes a part of the work of this course. Reports on books read are submitted. *Five hours a week, three terms. Required of all regular Freshmen of the Engineering, the Industrial Education, the Business Administration, and the General Science School; offered to all students prepared to take the work.*

Associate Professor TOWLES, Mr. BUTTS, and Mr. BREWER.

2. **Argumentation.**—(Prerequisite, English 1).—This course offers advanced work in argument. It considers rather the mental processes which are exercised in argumentative reasoning than the more special training for formal debating. It offers practice in gathering materials; gives particular attention to logical planning; demands concentration of the mind and encourages clarity of expression. It requires frequent written themes during the term and one long well-developed manuscript. *Five hours a week, the first term. Required of all Engineering, Industrial Education, Business Administration, and General Science Sophomores; offered to all students prepared to do the work.*

Assistant Professor GAINES and Mr. SHANNON.

5. **Literary Criticism.**—The aim of this course is to give the student a definite basis for determining for himself what is good and what is not good in literature. Consideration is given to the nomenclature of literary art, and to the principles of criticism as applicable to the different kinds of literature. Numerous selections are examined with the view to the fixing of standards to judge by. Occasional themes on assigned subjects constitute a part of the practice work of the course. *Five hours a week, the first term. Required of all Juniors of the Engineering, Industrial Education, and Business Administration schools; offered to all students prepared to do the work.*

Professor WEDDELL.

8. **Advanced Rhetoric.**—This course is similar to English 1, but is less comprehensive. Several classics are assigned for reading out of class. *Three hours a week, three terms. Required of all Agricultural Freshmen; offered to all Agricultural students prepared to take the work.*

Associate Professor TOWLES, Mr. BUTTS, and Mr. BREWER.

9. **Shakespeare.**—This course includes a brief review of the Elizabethan drama, some account of Shakespeare as a man and as a playwright, and a critical reading in class of two representative plays. Additional dramas are assigned for reading out of class. Written reports of these are required. *Five hours a week, the second term. Required of all Juniors in the Engineering, Industrial Education, and Business Administration schools; offered to all students prepared to take the work.*

Professor WEDDELL.

10. **Argumentation.**—(Prerequisite, English 8).—This course is somewhat parallel to English 2. It has the same general features, but being an abridgement, omits some details essential to thoroughness. *Three hours a week, the first term. Required of all Agricultural Sophomores; offered to all Agricultural students prepared to do the work.*

Assistant Professor GAINES and Mr. SHANNON.

11. **Exposition.**—(Prerequisite, English 8).—This is designed as a continuation of English 8, in which expository writing is given brief consideration. It is planned especially for the Agricultural students, to meet their need for more thorough training in the composition of papers dealing with practical subjects. The principles and methods of expository writing are considered and models of different types are studied. The making of outlines is emphasized. Numerous short papers and one long paper are required. *Three hours a week, the second term. Required of all Agricultural Sophomores; offered to all students prepared to do the work.* Assistant Professor GAINES.

12. **American Authors.**—The purpose of this course is to give a general understanding of literary movements in America, and a comprehensive view of the chief American authors. Brief biographical and other historical matter is given mainly by lectures. Study of selections from the works of the writers constitutes a most important part of the course. Especial attention is given to Southern writers. A critical essay is required of each student. *Five hours a week, the second term. Required of all Industrial Education and Business Administration Sophomores; offered to all students prepared to do the work.*

Associate Professor TOWLES and Mr. SHANNON.

13. **British Authors.**—The aim of this course is to acquaint the student with the great English writers and with important literary movements in England. Study of characteristic works of the authors constitutes the most important feature of the course. Considerable attention is given to present-day writers. Every student submits one critical essay based on readings assigned by the instructor. *Five hours a week, the third term. Required of all Engineering, Industrial Education, Business Administration, and General Science Sophomores; offered to all students prepared for the work.*

Associate Professor TOWLES, Assistant Professor GAINES, and Mr. SHANNON.

14. **British Authors.**—This course is a condensation of English 13. It considers a few important writers typical of great literary movements. Each student submits a term essay. *Three hours a week, the third term. Required of all Agricultural Sophomores; offered to all Agricultural students prepared to do the work.*

Assistant Professor GAINES, and Mr. SHANNON.

15. **Technical Writing.**—This is a purely practice course. It is designed to give the advanced Engineering students some training in the preparation of such papers as will be required of them when they go out in life;

such as business letters, reports, specifications, and the like. Numerous short papers and some long ones are required. *Five hours a week, the third term. Required of all Engineering Juniors; offered to all Engineering students prepared to do the work.*

Professor WEDDELL.

16. **The Modern Novel and the Short Story.**—During the first half of the term the history of the development of the novel is reviewed by lectures; plot and character analysis is stressed; the systematic study of one novel is required. The second half of the term is devoted to the study of the short story as a distinct form of literary art. Specimens by masters of the art are studied in class. *Five hours a week, the third term. Required of all Industrial Education Juniors; offered to all prepared to take the work.* Professor WEDDELL.

17. **English Romantic Poetry.**—The rise and the development of the romantic movement in English poetry are reviewed by lectures as introductory to the study of the poetry itself. The students read in class complete poems by Wordsworth, Coleridge, Shelly, and Keats. Written reports on readings are submitted. *Two hours a week, the first term. Required of all Industrial Education Seniors; offered to all students prepared to take the work.* Professor WEDDELL.

18. **The English Essay.**—The object of this course is to familiarize the student with choice specimens of work by the great essayists of England and America. Selected essays from Bacon, Addison, Lamb, De-Quincey, Carlyle, Ruskin, Arnold, Emerson, and others are studied in class. Each student submits themes on subjects connected with the work. *Two hours a week, the second term. Required of all Industrial Education Seniors; offered to all students prepared to take the work.*

Professor WEDDELL.

19. **The Teaching of English.**—This course is designed for those students of the School of Industrial Education who expect to become teachers in the public schools. Special attention is given to the teaching of English grammar and composition. *Two hours a week, the third term. Required of all Industrial Education Seniors.*

Professor WEDDELL.

22. **English Literature of the Eighteenth Century.**—An intensive study of the works of Addison, Pope, Gray, Burns, Burke, and Fielding. *Offered as a minor course leading to the degree of Master of Science.*

23. **English Fiction of the Nineteenth Century.**—An intensive study of the works of Dickens, Thackeray, George Eliot, Stevenson, and others. *Offered as a minor course leading to the degree of Master of Science.*

24. **Exposition.**—(Prerequisite, English 1).—This course is similar to English 11, but is more comprehensive. The making of outlines and the constructing of paragraphs are stressed. *Five hours a week, the second term. Required of Engineering and General Science Sophomores; offered to others prepared for the work.*

Associate Professor TOWLES and Mr. SHANNON.

25-26. **Advanced Composition.**—This course offers work to those students who desire to continue courses 11 and 24. The student is allowed to write in the field in which his chief interest lies. *Two terms. Elective for Agricultural Seniors and General Science Seniors and Juniors.*

FARM MANAGEMENT.

Professor PATE.

The purpose of the Department of Farm Management is to give students who desire to prepare themselves for practical work as farm managers or as citizens interested in agriculture, a knowledge of the business principles and details of operation which relate to the profitable management of the farm enterprises.

1. **Principles of Farm Management.**—This course is planned to give the student a practical working knowledge of the problems most frequently met in the operation of a farm. Such questions as choosing a farm; the type of farming best suited to each student's conditions; the labor problem; planning the farm; cropping systems; and the proportion of capital which can be wisely invested in land, buildings, and equipment are discussed. *Three hours a week class-room and two hours a week laboratory, second term. Required of all second year men taking the Two-Year Agricultural Course.*

2. **Farm Accounts and Legal Papers.**—This is a continuation of course 1, and deals with the advantages of keeping a simple practical system of farm accounts, and the more common legal papers. The records and accounts that will give the farmer the maximum of information concerning his operations with the minimum of bookkeeping are explained, and the students given laboratory practice work with simplified systems of accounts in use by successful farmers. Legal papers with which the farmer should have a working knowledge, such as deeds, mortgages, leases, and negotiable instruments will receive consideration. *Three hours class room and two hours a week laboratory, third term. Required of all second year men taking the Two-Year Agricultural Course.* Professor PATE.

3. **Farm Accounting.**—The primary object of this course is to acquaint the student of farm management with the methods of determining the cost of farm products. In addition to a study of the different systems of accounting suited to the various farming systems, this course deals with the problems met with in farm accounting, as the calculation of interest and depreciation on farm equipment; proper charges and credits for barnyard manure; the cost and distribution of man and horse labor; efficiency factors; and the losses and gains upon each farm

enterprise. *One hour class room work and two hours laboratory work each week, third term. Required of all Agricultural Sophomores.*

Professor PATE.

4. **Farm Organization.**—Distribution of investment, profitable combinations of farm enterprises, size of farm; arrangement of fields; location of buildings; cropping systems to provide adequate amounts of feed, and to maintain fertility; extent to which cash cropping is profitable; place of live stock on the farm; and the regulation of expenditures to produce the maximum managerial income, are some of the phases of farm organization to which the student has his attention directed. In this course each student is required to map out specific farms; then to make improved plans, and a business statement for profitable observation. Results of farm surveys and detailed records of actual farming operations are available for use in this course. Visits to farms are made the basis of laboratory work. *Three hours class room and two hours laboratory and field work, first term. Required of all Agricultural Seniors.*

Professor PATE.

5. **Methods of Farm Management.**—This course is a continuation of course 4, and is planned to carry the student deeper into the more practical managerial problems. A study is made of such phases of the subject as the adaptability and relative profitableness of the various types of farming; the advantages to landlord and tenant of share and cash tenancy; share cropping; the profitable use of wage labor; management of labor; and the shifting of operations of the farm to meet varying conditions. A review is made of the farm survey work of the United States; and each student is required to make a survey of a limited area. *Three hours class room and two hours laboratory or field work, second term. Required of all Agricultural Agronomy Seniors, and elective for all other Agricultural Seniors.*

Professor PATE.

6. **Farm Documents.**—This course is designed to familiarize the student with the legal phases of the farm business. Contracts, leases, deeds, mortgages, abstracts, negotiable instruments, and other legal papers of which the farmer should have a working knowledge are discussed. Laws relating to peonage, crop liens, trespass, drainage, fencing, control of noxious weeds, use of farm names and trademarks; the standing of sires for public use; the liability of the owner for his livestock, and the police powers of the farmer are among the subjects taken up in class. The text is supplemented with citations to the laws of Mississippi. *Two hours class room and two hours laboratory each week, third term. Elective for all Agricultural Seniors.* Professor PATE.

101. **Seminar.**—This course affords candidates for the Master of Science degree the opportunity to make original investigations and prepare scientific papers on special Farm Management problems. Individual problems are mapped out for each student to meet his needs and conditions. The county is largely used as the basis of these studies. The

questions of labor and tenancy will also receive attention. A thesis is required before completion of the course. *Hours and credits to be arranged.* Professor PATE.

102. Accredited Relationship With Farmers.—Any graduate of the college who has completed all undergraduate Farm Management courses, and who has had at least one year's actual farm experience, and who desires to secure more comprehensive training and experience, may arrange to work a year with successful progressive Mississippi farmers, for which he will be granted one-half year's credit toward a master's degree. The keeping of accurate data of the farm operations for the year and the preparation of a thesis are required in this work. The farms selected must be approved by the accredited farm relationship committee before the work begins.

FORGE WORK.

See Mechanical Engineering.

FOUNDRY WORK.

See Mechanical Engineering.

FRENCH.

See Modern Languages.

GEOLOGY AND MINING ENGINEERING.

Professor LOGAN.
Mr. ROARK.
Mr. THOMAS.
Mr. NETTO.

1. Physiography.—This course is intended to constitute an introduction to the physical sciences. It treats of the earth in its planetary relationships; of the atmosphere, its composition, temperature, and moisture conditions; of climate, rainfall, winds and weather; of the oceans, their tides and currents, work and effect upon climatic conditions; of the land masses and their divisions; of topographic features, mountains, volcanoes, plateaus, plains, and lake basins; of the phenomena of geysers, hot springs, glaciers, and underground waters; of the distribution of plants, animals and man. *Five hours per week for one term. Required of all Engineering Freshmen.*

Mr. THOMAS, Mr. NETTO, and Mr. ROARK.

1a. **Physiography.**—Same as course one except time. *Five hours class room and four hours of laboratory work for one term. Required of all General Science Freshmen.*

Mr. THOMAS, Mr. NETTO, and Mr. ROARK.

1b. **Physiography.**—A briefer course. *Three hours per week of class room work one term. Required of all Freshmen in Agriculture.*

Mr. THOMAS, Mr. NETTO, and Mr. ROARK.

2. **General Geology.**—A study of the elementary principles of geology including a study of constructive and destructive forces and their results; the origin of soil; the divisions of geological time; the rocks, life, and principal economic products of each geological period. The treatment of the subject is varied to meet the needs of the classes of students taking this course. *Three hours of class room work and three hours of laboratory work per week for one term. Required of Juniors in Agriculture.* Professor LOGAN and Mr. ROARK.

2b. **General Geology.**—Same as above. *Required of Juniors in General Science. Five hours per week theory and four hours laboratory.*

Mr. THOMAS.

3. **Elementary Geology.**—A brief course intended as an introduction to the science, and comprising a study of the materials of the earth's crust and the manner of their occurrence; a study of geological forces and the chemical and mechanical changes which they produce and the surface features to which they give rise. *Five hours of class room work and two hours of laboratory work per week for one term. Required of Juniors in Civil and Mining Engineering.*

Professor LOGAN and Mr. ROARK.

3b. **Historical Geology.**—A study of the history of the earth and the development of its life; the origin of the earth and the formation of its lithosphere; the dawn and progressive changes of life as recorded in the rocks of the lithosphere and a study of the principal types of life found in the fossil state. Special attention is directed toward the geological evolution of the North American Continent. *Five hours of class room work and two hours of laboratory work per week for one-half term. Required of Juniors in Civil and Mining Engineering.*

Professor LOGAN.

4. **Economic Geology and Ore Deposits.**—The first part of the course embraces a study, from a practical and scientific standpoint, of the chief economic products of the different geological formations. The course embraces a study of the nature, origin, quantity, mode of occurrence, geologic and geographic distribution of such products as coal, gas, oil, precious minerals, cements, marls, and building stones; special attention being directed to the important mineral products of Mississippi. The second part of the course embraces a study of the ore deposits, their genesis, the occurrence, geological association, classification and mode of origin of the important metalliferous minerals. *Five hours of class*

room work and two hours of laboratory work per week for one term. Required of Seniors in Civil and Mining Engineering.

Professor LOGAN.

5. **Dynamical Geology.**—A brief course embraces the elementary principles of dynamic geology; designed to give a more comprehensive view of the forces producing land sculpture, such topographic forms as hills, mountains, lake basins, and the various phenomena connected with the gross structure of rocks, such as folds, faults, joints, and fissures; the movements of the rocks of the earth; also the phenomena of extrusive and intrusive matter. *Five hours class room work and two hours of laboratory work per week for one-half term. Required of Juniors in Civil and Mining Engineering.* Professor LOGAN.

6. **Meteorology and Climatology.**—A study of all atmospheric phenomena bearing upon weather and climate; comprising a consideration of the air, its properties and functions; its weight, pressure, density, temperature, moisture, evaporation, humidity, condensation; clouds, frost, hail, dew, snow; measurement of precipitation; convection; relation of pressure to winds; insolation; isotherms; effects of winds, currents, and topography on climate; range of temperature; temperate zones; distribution of pressure and winds; relation of temperature and pressure; relation of pressure and winds; trades and anti-trades; monsoons, cyclones and anti-cyclones; hurricanes; typhoons; tornadoes; warm and cold waves; blizzards; rainfalls; laws of distribution; weather and climate; meteorological instruments; construction of weather maps. *Required of students in Science and others specializing in the work of the department. Five hours per week.* Professor LOGAN.

7. **Mineralogy 1 (Crystallography).**—The course in Mineralogy is introduced by a brief course in Crystallography which includes a study of the six systems of crystallization and the modifications under each, the various forms being studied by means of models and actual mineral crystals. This subject is followed by a study of the physical properties of minerals, the different properties being illustrated by typical mineral species. *One hour class room work and four hours laboratory work per week for one term, for Seniors in Civil and Mining Engineering.*

Mr. ROARK.

7a. **Mineralogy 2** (Blowpipe Analysis).—A study of the physical properties of minerals is followed by a study of the more common metalliferous and silicate minerals, and the method of their determination by use of the blow-pipe. The determination of fifty unknown minerals is usually required before the close of the term. *One hour class room work and four hours laboratory work per week for one term. Required of Seniors in Civil and Mining Engineering.* Mr. ROARK.

7b. **Mineralogy 3 (Assaying).**—The first part of the course includes a study of ore sampling and slag sampling; fire-assay methods, scorification and crucible assays, of gold, silver, lead and other metals in ore samples. The second part of the course includes a study of methods in

"wet" assaying, determinations employing methods of volumetric quantitative analysis. The list of determinations includes the common metals such as lead, copper, iron, zinc, silica, and sulphur. *Lectures one hour and laboratory work four hours per week for one term. Required of Seniors in Civil and Mining Engineering.*

Professor LOGAN, and Mr. ROARK.

8. **Mining 1.**—A course in the principles of mining including prospecting, preliminary mine development, location of plant, mechanical equipment, tunnelling, shaft-sinking, the line of mines, methods of administration, risk in mining investsments, and kindred topics. *Five hours of class room and two hours of laboratory work per week for one term. Required of Seniors in Civil and Mining Engineering.*

Professor LOGAN.

9. **Mining 2.**—A course in practice including a study of mine timbers and drift sets, driving in running ground; shaft timbering, stopping, filling levels, cross cuts, stations, rises, winzes, caving systems; use of square-set; head frame construction; transportation in mines; drainage; methods of ore breaking; use of explosives and other topics. *Five hours of class room work and two hours of laboratory work per week for one term. Required of Seniors in Civil and Mining Engineering.*

Professor LOGAN.

10. **Metallurgy.**—A course on the occurrence, smelting, and refining of gold, silver, copper, lead, and zinc; including a discussion of shaft reverberatory smelting, open hearth, and blast furnace methods; cyanide and chlorination processes; the recovery of gold by amaldgamation processes, pyrometry, calorimetry, and electrolytic processes. *Lectures three hours per week for one term. Open to special students or graduate students having completed course* 6. Professor LOGAN.

11. **Metallography.**—A course intended to familiarize the student with the changes which steel and other metals undergo when subjected to mechanical stresses and heat, the theory of the structure of alloys; and the structure and miscropic characteristics of the useful alloys. *Required as above. Five hours per week.* Professor LOGAN.

12. **Structural Geology.**—Comprising the study of fracture and flow; fractures, faults; rocks flowage; structures common to fracture zones and to flowage zones; types of mountains; their relations to faults and folds; localization of mountains; the larger units of structure, plateaus, ocean basins, continents; forces of deformation; isostasy; tension, its causes; major causes of deformation, minor causes; relation between deformation and vulcanism; unconformities, causes, identification, and interpretation. *Five hours theory and four hours practice per week. Elective for Science students prepared to take the work.*

Professor LOGAN.

15. **Commercial Geography.**—This course is intended to give the student a knowledge of production and trade. It deals with natural environments in their relation to trade and production; the relation of man to

natural conditions; the nature of trade, its routes and stations; the antecedents of modern trade; the geography of trade; the trade conditions of the United States, its vegetable products, animal products, mineral products, manufactures, transportation, commerce, foreign possessions; the trade conditions of Great Britain, Germany, South America, and other countries. *Five hours theory. Required of Freshmen in Business Administration and Public Affairs. Third term.*

Mr. ————.

12a. Special Geology.—A course in geology will be arranged for those students having taken the prerequisite courses. This work will consist of laboratory work, field work, geological folio work, and lectures. The number of hours will be arranged to suit the convenience of instructor and student.

GRADUATE COURSES.

Graduate courses will be arranged in any of the subjects taught in the department as either major or minor topics. Such courses require as a prerequisite the under-graduate courses offered in that subject. The graduate work will consist in more advanced work in the courses already enumerated. Opportunities for original work on the geology, mineralogy and soils of Mississippi are abundant and may be made the basis for theses.

The equipment of this department consists of two lecture rooms, one of which is fitted with a screen and shades making it suitable for illustrative work; a laboratory equipped with suitable apparatus for the study of minerology; a laboratory for work in crystallography and the testing of clays; a museum containing a collection of rocks, soils, minerals, marls, fossils of different geological periods, especially of the Cretaceous, and other illustrative material, a combination of reflectoscope and stereopticon with several hundred latern slides, photographs and other illustrations on the subject of geology, physiography, and mining. In addition the department is equipped with a set of relief maps, a set of geographical maps, a set of paleontologic charts, and material in the way of globes and models. For work in physiography the laboratory of this department is equipped with a barometer, rain guage, maximum and minimum thermometers, hygrometer, air tester, aneriod barometer, heliodon, sun dial, and anomometer. The department library contains many geological bulletins, and

reports; a set of folios, topographic maps and other literature. The college library contains all of the reports, monographs, and bulletins of the U. S. G. S., many of the state survey reports, and other reference books of use in the department.

The department has issued the following reports which are for free distribution: The Geology of Oktibbeha County, the Underground Waters of Mississippi, The Brick Clays of Mississippi, The Pottery Clays of Mississippi, The Soils of Mississippi, The Structural Materials of Mississippi. Other reports are in course of preparation.

GERMAN.

See Modern Languages.

HISTORY AND CIVICS.

Professor HERBERT.
Associate Professor GARNER.

It is the purpose of the Department of History and Civics **(a)** to give the students some insight into the great historic movements of the world; **(b)** to give them some acquaintance with the method of historical study; **(c)** to give them such a knowledge of American history, governmental institutions, and economics as will enable them to understand and appreciate the privileges and duties of citizens. In order to carry out this three-fold purpose, liberal use of the college library is required, and the following courses are offered:

HISTORY.

1. **English History.**—This course is a general treatment of the whole field of English history, with stress laid upon the leading facts and upon the growth of British institutions as a foundation for the study of American institutions. The text-book in use is History of England, Cheyney. *Three hours per week, first term. Required of all Agricultural, Engineering, General Science, Business Administration, and Public Affairs Freshmen.*

   Professor HERBERT and Professor GARNER.

14. **Mediaeval and Modern History.**—This course is divided into two parts, A and B. Part A begins with the development of modern nations and continues through the Protestant Revolt in Germany; Part B

takes up where Part A leaves off, and continues through the book. Each part is given as the work for one term. *Required of all Agricultural, Engineering and General Science Freshmen.*

Professor HERBERT and Professor GARNER.

18. **American History.**—In scope this course covers the whole field of American History. It is divided into three parts: A, B, and C. Part A covers the colonial period up to 1750; Part B covers the middle period from 1750 to 1829; Part C covers the period from 1829 to the present time. Each part is a term's work. Collateral reading and reports and essays on assigned topics serve to broaden and strengthen the work of the course. *Three hours per week for three terms. Required of Industrial Educational Juniors.*

Professor GARNER.

19. **Industrial History of England.**— This course is designed as a brief treatment of the whole field of English history; but more time and emphasis will be given to institutional growth, social, economic, and religious development than in course No. 1. The text used will be Cheyney's Social and Industrial History of England, which will be supplemented with notes, lectures, and class reports. *Five hours per week, one term. Required of Agricultural and Mechanic Arts divisions of the Industrial Education Senior class.*

Professor GARNER.

21. **Mediaeval and Modern History.**—In this course a study is made of the rise, growth, development, and influence of some of the most important institutions and movements of mediaeval and modern history. Readings, notes, and reports on assigned topics supplement the text-book and regular class room work. This course is divided into two parts. Part A covers the period from the fall of the Roman Empire in the West up to the Lutheran Revolt in Germany; Part B takes the work up where it is left off in Part A, and carries it on to the present time. Each part constitutes one term's work. *Five hours per week for two terms. Required of all Mechanic Arts and Agricultural divisions of the Freshman class in the School of Industrial Education.*

Professor GARNER.

22. **American History Since 1750.**—It is intended to cover in this course the growth and development of the American nation. A text-book will be used and as much library work will be given as the time will permit. *Three hours per week for two terms. Required of all Freshmen in the divisions of Business Administration and Public Affairs.*

Professor GARNER.

23. **Industrial History of the United States.**—This course deals with the business aspects of early American civilization; the colonial labor and money supply; colonial commerce and manufactures; the economic aspects of the Revolution; the Westward movement and the public lands; the expansion of manufacturers after the War of 1812; the protectionist movement; the development of internal improvements and

railways; the economic causes and results of the Civil War; Commercial and industrial expansion since the Civil War. *Two terms, three hours a week. Required of members of the Senior class in the divisions of Business Administration and Public Affairs.*

Professor HERBERT.

28. **Industrial History of England.**—This course will be a more extended treatment of the institutional growth, social, economic, and religious development of England than course No. 19. A text will be used, and much time will be devoted to notes, lectures, and class reports. *Three hours a week for three terms. Required of the Juniors in the department of Business Administration and Public Affairs.*

Professor GARNER.

ECONOMICS.

5. **Principles of Political Economy.**—This course is merely an introduction to the study of economics, and is intended to treat of the subject in a general way. The work is given by means of a text-book—Ely's Outlines of Economics is at present in use—and free class discussion. *Five hours per week, second term. Required of all members of the Senior Class, except those taking the Agricultural course.*

Professor HERBERT.

24. **Outlines of Economics.**—This course is a more extended treatment than is given in course No. 5. The same text will be used and the same general treatment of the subject given. In the longer time devoted to the course, a greater degree of familiarity with the subject may be expected. *Three hours a week for two terms. Required of Juniors in the division of Business Administration and Public Affairs.*

Professor HERBERT.

25. **Money and Banking.**—The foundamental principles of money, credit, and banking, and their exemplification in modern currency and banking history, particularly in the United States, constitute the work of this course. Stress will also be laid on present problems and conditions. Text: White's Money and Banking. *Three hours a week for one term. Required of Juniors in the division of Public Affairs.*

Professor HERBERT.

26. **Taxation.**—The subject of this course indicates the scope of the work. In addition to the general subject of taxation, stress will be laid on present day problems. Text: Seligman Essay in Taxation. Readings. State Tax Commission Reports. *Three hours a week for two terms. Required of Seniors in the division of Public Affairs.*

Professor HERBERT.

CIVICS.

16. **Political Science.**—Only a brief study of political science, the "science of state," is attempted. The course is a study, from text-book and library, of the origin and historic evolution of the state; of the nature of its organization, its relation to the individuals that compose it, and its relations to other states. Further, the course deals with

states as they exist today, stress being laid upon the governments of the United States and the leading nations of Western Europe. The text-book is Gettell's Introduction to Political Science. *Five hours a week for one term. Required of Pedagoical Seniors and of Juniors in the divisions of Business Administration and Public Affairs.*

Professor HERBERT.

17. **Elements of Civil Government.**—This course, as its name states, is an elementary treatment of the subject. It is designed to give Freshmen such facts and principles of government as will train them for better citizenship. The work is given by means of a text-book and as much assigned library work as the time of the student will permit. *Five hours a week for one term. Required of Engineering Freshmen.*

Professor HERBERT.

20. **Civil Government.**—The salient points in the operation of local, town, county, city, and state government in the United States, and a study of the Constitution of the United States and of Mississippi, constitute the work of this course. This course is given by means of a text-book, the New American Government and its Work by Young, but collateral reading and reports on assigned topics serve to strengthen the course. *Three hours per week for one term. Required of all Agricultural Seniors, and all Seniors in the division of Public Affairs.*

Professor HERBERT.

27. **Municipal Government.**—This course is devoted to a general treatment of the city government, the rise and recent growth; and a consideration of some of the more important problems in connection with cities as financial, industrial, and social centers. A text-book will be used and constant consultation of reference works will be required. *Five hours a week for one term. Required of all Seniors in the division of Public Affairs.* Professor HERBERT.

HORTICULTURE.

Professor McKAY.
Mr. LLOYDE.

We have aimed in planning these courses to give the student instruction which is practical as well as theoretical. The theoretical instruction is obtained from text books, lectures, reference books, bulletins, magazines, and other publications found in the college and department libraries. The work in the garden, orchard, vineyard, greenhouses, upon the campus, and in the laboratory, is designed to put into practice the theoretical idea given in the class-room thus intimately connecting theory and practice and making the laboratory exercises pages in the student's horticultural experience. The entire course is

so planned as to give the student a working knowledge of horticulture, a foundation upon which he can safely build his future work.

Instruction in the following subjects is offered by the Department of Horticulture:

45. **Principles of Horticulture.**—The aim of this course is to give the student instruction in the fundamental principles of the science of horticulture upon which the advanced courses must depend. Among the many topics considered are the following (a) The propagation of plants by seeds, separation, division, cutting, layers, grafting, and budding; and (b) the care of plants and trees in the nursery. The text and reference books used are: Bailey's Nursery Book, Budd and Hansen's American Horticultural Manual Part 1, and Fletcher's How to Make a Fruit Garden, besides reference books and bulletins in the department library. Supplemented by lectures. *First term, three hours per week in class room, and two hours per week laboratory, and field practice. Required of Agricultural Sophomores.*

Professor McKAY and Mr. LLOYDE.

46. **Olericulture, Pomology, and Floriculture.**—This course continues the work as outlined in course 45 taking up the study of such vegetables, fruits, and flowers as should be found in the best gardens, orchards, and floral plantings, showing the student the best methods of planting, cultivating, fertilizing, training and otherwise caring for such crops. Text and reference books: Lloyd's Productive Vegetable Growing, Watt's Vegetable Gardening, besides books and bulletins in the department library. Supplemented by lectures. *Second term, three hours per week in the class room and two hours per week laboratory and field practice. Required of Agricultural Juniors. Prerequisites, Horticulture* 45, *and elementary courses in Botany, Entomology, Soils and Chemistry.*

Professor McKAY and Mr. LLOYDE.

47. **Elementary Horticulture.**—This course has been designed especially for Seniors in Pedagogy and treats of the broad principles of horticulture as given in courses 45 and 46. Much of the detailed work of these courses is necessarily omitted, but the laboratory is made thoroughly practical to show points in culture, training, etc., which must be omitted from the lecture work. Supplemented by lectures. *First term; three hours per week in class room and two hours per week laboratory and field practice. Required of Pedagogical Seniors.*

Professor McKAY and Mr. LLOYDE.

48. **Advanced Horticulture.**—Research work in (a) Olericulture, (b) Pomology, (c) Floriculture. This course continues the lines studied in previous courses and gives the student a chance to show some originality in his work. It proposes to acquaint students more intimately with the science and the art of horticulture, to quicken the investigative spirit

and to start them in the work of specializing in this branch of agriculture. Research work is given in the laboratory, garden, orchards, greenhouses, and upon the campus, while in connection with this work the student must, on assigned topics, prepare bibliographies and from them write reports or give lectures. Text and reference books: Bailey's Evolution of Our Native Fruits, and the Survival of the Unlike, Bailey and Gilbert's Plant Breeding, White's Floriculture, Bailey's Cyclopedia of American Horticulture and several floricultural reference books. Supplemented by lectures. *Second term, three hours per week in class room, and two hours per week laboratory and field practice. Required of Pedagogical Seniors, and elective for Agricultural Seniors. Prerequisites: Horticulture* 45 *and* 46 *for Agricultural Seniors and Horticulture* 47 *for Pedagogical Seniors supplemented by equivalent courses in Botany, Entomology, Soils, and Chemistry.*

Professor McKAY and Mr. LLOYDE.

49. **Commercial Horticulture.**—In this course the student gets wholly the practical side of Horticulture and studies (a) the selection, preparation, and cultivation of soils devoted to fruits and vegetables grown for market; (b) the rotation of garden and orchard crops with farm crops; (c) the correct use of farm manures and commercial fertilizers in connection with thorough drainage and irrigation; (d) the best methods of gathering, packing, and marketing garden and orchard products. Such lectures, books, periodicals, and laboratory equipment will be used as will give the student a working knowledge of the whole subject. Supplemented by lectures. *Second term, three hours per week in the class room, and two hours per week laboratory and field practice. Elective Agricultural Seniors.*

Professor McKAY and Mr. LLOYDE.

50. **Lanscape Design.**—In the limited time assigned to this subject students will be instructed in the best methods of planning and laying out home and school grounds, public squares, cemeteries, parks, etc., and the art of embellishing such grounds with trees, shrubs, grass, flowers, etc. Text: Landscape Gardening by Maynard, with numerous reference books such as Waugh's Landscape Beautiful, Waugh's Landscape Gardening, Johnson's Residential Sites and Environments, and Weidmann's Beautifying Country Homes, are used. *Third term, two hours in class room and four hours laboratory and field practice. Required of Pedagogical Seniors and elective for Agricultural Seniors.*

Professor McKAY and Mr. LLOYDE.

51. **(a) The Home Garden, (b) The Home Orchard, (c) Beautifying the Home Grounds.**—This course is especially arranged for students taking the two-year course in Agriculture. The material in courses 45 and 46 is simplified and condensed so as to be readily understood without previous technical training. A suitable text will be used. Supplemented by lectures. *Time given to this course is as follows: During the third term, second year, three hours per week in the class room,*

and two hours in laboratory and field practice. Required of all students taking the Two-Year Course in Agriculture.

Professor McKAY and Mr. LLOYDE.

52. **Graduate Horticultural Research.**—This is a course for graduates only and leads to the degree of Master of Science when Horticulture is their major or minor course. Work will be given allowing the students to specialize in any particular phase of the subject he desires. The thesis, which is required, must be the result of original research on a subject chosen by the candidate and approved by this department. There are many problems in the orchards and gardens of the college which are awaiting the man with research ability along horticultural lines. *Three terms, 15 course hours per term, exclusive of the writing of the thesis. Prerequisites. Bachelor of Science degree from colleges having equivalent courses in Horticulture and such Chemistry, Botany, Soils and Entomology as shall be deemed necessary to completion of the thesis.*

Professor McKAY and Mr. LLOYDE.

HYGIENE.

Professor MARSHALL.

The course in hygiene, which is taught only in the first term, will be confined strictly to personal hygiene, as the limited time in which this branch is taught will not permit us to go further into details.

It has been deemed wise and best that this subject should be taught by lectures as the essential points which the student should know can be more easily understood by being instructed in this manner than if they were to be confined strictly to a text-book.

However, this course of lectures will follow as closely as practicable the principles of hygiene as laid down by Dr. Pyle in his text-book on this subject.

1. **Special Lectures.**—Delivered to the class beginning and during the first term on the following subjects: Venereal diseases and their injurious effects, from both a moral and a physical standpoint; dietetics, ventilation, proper clothing, bathing, and all kindred subjects on personal hygiene, will be discussed in these lectures. The proper kind and amount of exercise, when and how to take it is another subject closely allied to personal hygiene, which will be discussed in these lectures. *One hour per week. Required of all Agricultural, Engineering and Industrial Education Freshmen.*

2. **The Same as Course 1,** but more comprehensive. *Five hours per week, first term. Required of all General Science Freshmen.*

JOURNALISM.

See Public Discourse.

LOGIC.

See Philosophy and Sociology.

MACHINE SHOP.

See Mechanical Engineering.

MANUAL TRAINING.

See Mechanical Engineering.

MARKETS AND RURAL ECONOMICS.

Professor BROOKS.

The immense amount of wealth involved in distribution and marketing, and the great amount of work devoted to it render the problems of this branch of human activities of prime importance. The neglect of the purely business end of farming has had a deleterious effect on the agricultural class.

Production and distribution are co-ordinate: The cost of both, and the demand, determine commercial values. In this new department the subject of markets is given its rightful place in the economy of our civilization. The universal interest manifested and the developments that have taken place during the last few years justify the recognition it is receiving by our colleges and universities.

1. **Markets and Rural Economics.**—The course covers three main divisions: (a) Rural Economics; (b) Marketing; (c) Financing. Under rural economics is discussed farm life, farm management, relation of production to distribution, effect of commerce on rural development, agencies controlling price, and organized agriculture at home and abroad. Under marketing the business side of agriculture is considered, distribution is treated in the light of a science in its relation to production and consumption. Marketing by manufacturers, by commercial corporations, and by farmers is examined in detail. Marketing by individuals, by corporations, and by co-operative association is discussed and their relative merits considered. A study of trusts, pools, and combines and of conditions which have led to the development of large business combinations are followed; and a description of the methods of organization of typical industries; an analysis of the advantages and disadvantages of large business organization; and a consideration of

the different policies of governmental regulation. The operation of cotton, grain, stock, and farmers' exchanges. Under financing is considered the financing of production and distribution; influence of banking on agriculture; rural credits in Europe and in the United States. *One term, four hours per week. Required of Agricultural Juniors, Industrial Education Seniors. Open to all Juniors and Seniors. The same course abbreviated. One term, three hours a week. Required of Two-Year students in Agriculture.*

Graduate Research Work in Markets and Rural Economics is developed by five principal methods: namely, historical, statistical, accounting, organization, and general field investigation. The method includes facility in investigation, tabulation, and interpretation of results. Candidates for the M. S. degree must have a working knowledge of the principal divisions of general economics and of all fields of agricultural economics. Graduates for the Master's Degree or candidates offering a minor in rural economics will be required to pass an examination covering the undergraduate work now offered in Markets and Rural Economics, and in addition to follow such definite research work as may be outlined by the department. Special investigation may be made by electing seminars in subjects covered. They are required to make a special study of two or more of the following courses, and to write a thesis covering the results of a line of specific personal investigation:

2. **Historical and Comparative Agriculture.**—History of the development of agriculture and Problems of Agricultural Economics and Agricultural Commerce: Ancient, Mediaeval, Modern.
3. **Problems of Agricultural Production.**—Including Labor, investment, relative capital, factors determining the character of farming which should be done.
4. **Land Tenure and Land Problems.**—Land tenure in various countries and the effect on production, distribution, and general social conditions; acquisition of lands by nations and individuals; size of farms, with social effects; absentee landlordism and social effects; tenancy and farm wage-earners and social effects; inheritance, primo, genature, and entail.
5. **Agricultural Commerce—Distribution.**—The study of the various problems entering into the distribution and sale of agricultural products, domestic and foreign; problems of standardization, transportation, storage and warehousing; distribution by middlemen and by farmers' exchanges; other exchanges, speculation, tariffs, bounties, valorization; the law of price.
6. **Agricultural, Industrial and Commercial Co-operation.**—History and development of co-operative societies; different phases of

co-operative production and distribution as now in operation; elementary principles of co-operation with varying manifestations. Farmers' exchanges and their problems; their status in law.—Business forms.

7. **Agricultural Development in the United States.**—Efficiency per hand; machinery; effect of availability of markets, improved machinery, and means of transportation; Bonanza farming,—its economics and social effects. Cereal, cotton, live stock, fruit, and truck farming.

8. **Agricultural Legislation.**—A survey of state and national legislation as it affects agricultural and rural problems—such as laws relating to municipal markets, commission men, switching charges, refrigerating cars, etc.; legislation with regard to contracts between associations and their members and non-members; contracts involving things that do not exist, etc.; legislation with regard to taxation, titles of land, land tenure, relation of landlord and tenant, acquisition and terms of payment for land; legislation on tariffs, subventions, rural credits, etc.

9. **Rural Credits Systems at Home and Abroad.**—Co-operative and otherwise; independent credits and government aided credits, land credits and personal credits; character of both short-time and long-time loans to determine the length of loan; amortization compared with the deferred payment plan; land mortgage banks and co-operative banks; financing distribution; credit buying and its tax on industry.

10. **Surveys of Rural Conditions, Economic and Social.**—To consist of special investigations of particular topics or a general investigation of some selected community; including collection, tabulation, and interpretation of data gathered; what part of their products they consume, what kinds of goods they buy, their organizations, civic relations, social activities, what they read and talk about.

11. **Thesis.**—A thesis consisting of the results of an investigation into one of several topics connected with agricultural economics; to be original and illustrated by drawings, camera pictures, diagrams, tabulations, etc., which must show exhaustive work.

12. **Agricultural Development in the United States.**—(Minor course). Increased area; waste of resources; efficiency per hand; tendency. Marketing problems due to the development of large industries and the facilities for transportation. Bonanza farming and its effects economically and socially. Development of class farming—cereal, cotton, stock, truck, etc.

13. **Commercial, Industrial and Agricultural Co-operation.**—(Minor course). History of co-operation; examples of successful co-operation in various parts of the world; difficulties in the way and a study of the causes of the failures of co-operative enterprises. Comparative service rendered by social and educational organizations and commercial organizations.

14. **Rural Credits.**—(Minor course).—Commercial banking compared with rural credits; needs of commerce and agriculture compared; rural

credits in various countries of the world, with emphasis on the latest developments in the United States. Torrens system of land registration. How farmers may finance distribution.

15. **Thesis.**

MATHEMATICS.

Professor WALKER.
Associate Professor STARK.
Assistant Professor WALLACE.
Mr. WRIGHT.

The object of this department is to furnish thorough and practical instruction in the courses which it offers.

28. **Plane and Solid Geometry.**—Rectilinear figures, the circle, similar polygons, regular polygons, and circles, lines, and planes in space, polyhedrons, cylinders, cones, and the sphere. Robbin's Plane and Solid Geometry. *Five hours per week, two terms, Freshman year. Required of Agricultural Freshmen.*

Mr. WALLACE and Mr. WRIGHT.

29. **Plane and Solid Geometry.**—The same as course 28, but more comprehensive. *Five hours per week, Freshman year. Required of all Freshmen except Agricultural.*

Mr. WALLACE and Mr. WRIGHT.

24. **Advanced Algebra.**—Quadratics, indeterminate co-efficients, binominal theorem, and common logarithms. *Three hours per week, first and second terms. Required of Agricultural Sophomores.*

Professor WALLACE.

25. **Advanced Algebra.**—Same as course 24, but more comprehensive. *Five hours per week, first and second terms. Required of all except Agricultural Sophomores.* Professor WALLACE.

26. **Plane and Spherical Trigonometry.**—Trigonometric functions of acute angles, the right triangle, goniometry, the oblique triangle, the right spherical triangle, and the oblique spherical triangle. Wentworth's Plane and Spherical Trigonometry. *Three hours per week, third term. Required of Agricultural Sophomores.*

Professor STARK.

27. **Plane and Spherical Trigonometry.**—The same as course 26, but more comprehensive. *Five hours per week, third term. Required of all Sophomores except Agricultural.* Professor STARK.

30. **Analytic Geometry.**—Loci and their equations, the straight line, the circle, system of co-ordinates, and the conic sections. Wentworth's Analytic Geometry. *Five hours per week, one term and one-half. Required of Engineering Juniors.* Professor WALKER.

31. **Differential Calculus.**—Differentiation of algebraic, logarithmic, and exponential functions; sucessive differentiation, indeterminate forms,

expansion of functions, maxima and minima, points of inflexion and singular points. Taylor's Differential Calculus, Revised. *Five hours per week, one-half year. Required of Engineering Juniors.*

Professor WALKER.

11. **Integral Calculus.**—Standard forms, direct integration, definite integrals, integration of rational fractions, integration by rationalization, integration by parts, double and triple integration. Taylor's Integral Calculus, Revised. *Five hours per week, first term. Required of Engineering Seniors.* Professor WALKER.

32. **Analytic Mechanics.**—Composition and resolution of forces, moments, couples, centers of gravity, friction, machines, rectilinear and curvilinear motion, constrained motion, work and energy, and moment of inertia. Bowser's Analytic Mechanics. *Five hours per week, second and third terms. Required of Engineering Seniors.*

Professor WALKER.

15. **Advanced Analytic Geometry.**—Homogeneous co-ordinates of point and line, principle of duality, poles and polars, reciprocal polars, loci of the second order, and elements of higher plane curves. *Informal. Open to graduates only.* Professor WALKER.

16. **Solid Analytic Geometry.**—Elements of analytic geometry of three dimensions, quadric surfaces, and twisted curves and surfaces. *Informal. Open to graduates only.* Professor WALKER.

17. **Advanced Differential Calculus.**—Fundamental principles and general methods with applications to problems arising in mathematics and physics. *Informal. Open to graduates only.*

Professor WALKER.

18. **Advanced Integral Calculus.**—A complete treatment of the various methods of integration, definite integrals, multiple intergrals and elliptic integrals, and the elements of differential equations. *Informal. Open to graduates only.* Professor WALKER.

19. **Theory of Equations.**—Study of algebraic equations, transformations, determinants, and the solutions of numerical equations. *Informal. Open to graduates only.* Professor WALKER.

20. **Elements of Theory of Functions.**—Infinite series and integration, conformal representation, and algebraic functions and their integrals. *Informal. Open to graduates only.* Professor WALKER.

MECHANICAL ENGINEERING.

Professor CARPENTER.
Associate Professor BROADFOOT.
Assistant Professor FOX.
Mr. GILES.
Mr. LUCAS.
Mr. LEAKE.
Mr. MONTGOMERY.

The Department of Mechanical Engineering, including class-room, laboratories, and shops, is located in the engineering building.

Instruction in this department consists of class-room work and practical work in the shop or laboratory, the two lines of work being designed to emphasize and reinforce each other. The course covers a period of four years and aims to fit students to enter successfully into practical engineering work, and to this end lays stress on mechanical drawing, shop construction, laboratory practice, and the economic operation of power plants.

The class-room work is taught by text-books, lectures, and problems. In the design rooms, the instruction is given by lecture and reference books, together with practice using manufacturers' drafting room methods.

The student, in the latter part of his course, is required to operate, test, and report on various pieces of apparatus and equipment in the shops, laboratory, and the central power plant.

For the benefit of students who for any reason are not able to remain in college to complete the full course, but who wish some training in drawing, shop practice, and power plant operation, a special two-year course has been arranged. This course is particularly recommended to young men who contemplate entering the mechanical trades, either preceding or following the apprenticeship period. For teachers who desire to secure preparation in the subjects pertaining to manual training, special shop courses are arranged. These will include such of the regular courses as are adapted to the requirements of the class and suitable supplementary courses in wood and metal work. Lectures on the arrangement of courses and the equipment for instruction in manual training are offered.

It is the desire of the Mechanical Engineering Department to be of all possible service to owners and operators of power plants, of machine shops, and of manufacturing industries. To this end, correspondence is invited on any problems along mechanical engineering lines; and the technical skill and equipment of the department is at the service of any citizen of the state.

The courses are as follows:

28. **Wood Work.**—Elementary instruction in bench work, involving the use of ordinary hand tools, such as planes, saws, squares, chisels, etc. The exercises given and the models constructed are designed to make the student familiar with, and give him skill in the use of, these tools. *Four hours a week, first term required of all Freshmen. Four hours a week, second term, required of First-Year Training course. Four hours a week, first term, required of First Year Agricultural Short Course.*

Mr. BROADFOOT, Mr. LEAKE, and Mr. MONTGOMERY.

30. **Wood Work.**—Prerequisite, course 28. This is a continuation of course 28. The work is given largely along cabinet lines. Such objects as drawing boards, T-squares, tabourets, chairs, book-cases, tables, etc., are constructed. The student obtains a good working knowledge of wood-working machinery, such as band saws, jig saws, circular saws, surface planers, hand jointers, boring machines, etc. Special attention is given to hand finishing, scraping and sand-papering; and all students who finish the course, get some experience in gluing, staining, filling and varnishing. The latter half of the spring term is devoted to wood turning, which includes turning, between centers, face plate and chuck turning, polishing and finishing. *Six hours a week, second and third terms. Required of Engineering Freshmen.*

Mr. BROADFOOT and Mr. MONTGOMERY.

54. **Wood Work.**—Prerequisite, course 28. Same as course 30, except for time. *Four hours a week second and third terms. Required of General Science Freshmen.*

Mr. BROADFOOT and Mr. LEAKE.

55. **Wood Work.**—Prerequisite, course 28. This is a continuation of course 28, but brings into use a larger and more varied assortment of tools, and all work finished is of intrinsic value in the home or elsewhere. The work increases in difficultness and complexity as the students advance. *Four hours a week, third term. Required of First-Year Training Course.*

56. **Wood Work.**—Prerequisite, courses 28 and 55. This is a continuation of course 55. The hand tools are supplemented in some measure, by machines. The work given consists of small drawing boards, T-squares, book racks, etc. Lectures are given on care and sharpening of tools, selection and protection of material, shop economics, etc. *Four hours*

a week, second and third terms. Required of second year Training Course. Mr. BROADFOOT and Mr. MONTGOMERY.

59. **Manual Training.**—This is a course in paper folding, cardboard construction, elementary and advanced knife work, and Venetian iron work. These subjects are given in sufficient amounts to furnish the students with a good working knowledge of these subjects as taught in the lower grades of the public schools. *Six hours a week first term. Required of Industrial Education Sophomores.*

Mr. BROADFOOT and Mr. LEAKE.

60. **Manual Training.**—Prerequisite, course 28. This is a continuation of course 28. The work is based on the logical sequence of the exercises involved, from the simpler to the more complex, from the easy to the more difficult. The course admits and encourages original designs, but these must be acceptable to the instructor. *Four hours a week, second and third terms. Required of Industrial Education Freshmen.*

Mr. BROADFOOT and Mr. LEAKE.

30. **Manual Training.**—Prerequisite, course 28. This is a continuation of course 28. The work is based on the logical sequence of the exercises involved, from the simpler to the more complex, from the easy to the more difficult. The course admits and encourages original designs, but these must be acceptable to the instructor. *Six hours a week, first term. Required of Industrial Eduaction Seniors.*

Mr. BROADFOOT and Mr. LEAKE.

1. **Manual Training.**—A course in wood turning, consisting of turning between centers, face plate and chuck turning, polishing and finishing. *Six hours a week, third term. Required of Industrial Education Sophomores.* Mr. BROADFOOT and Mr. MONTGOMERY.

7. **Wood Work.**—A lecture and quiz course in mechanical technology, dealing with the installation and operation of a wood working plant, including a study of hand and machine tools, shafting, hangers, countershafts, etc. *One hour a week, second and third terms. Required of Industrial Education Freshmen. One hour a week, second term. Required of Engineering Freshmen. One hour a week, first term. Required of Industrial Education Sophomores.*

Mr. BROADFOOT, Mr. LEAKE, and Mr. MONTGOMERY.

3. **Manual Training.**—Lectures and quizzes on the origin and purpose of manual training, its relation to the public schools and its probable influence in the building of character. *One hour a week, third term. Required of Industrial Education Sophomores.*

Mr. BROADFOOT.

9. **Elementary Practical Mechanics.**—Lectures and quizzes in shop problems and mechanical calculations, such as arise in every day shop practice. *Three hours a week, third term. Required of Industrial Education Seniors.* Mr. MONTGOMERY.

3. **Wood Work.**—Prerequisite, course 30. A course in pattern making, comprising the making of simple patterns until fundamental principles

are mastered, after which patterns of machines and repair parts are made. *Four hours a week, third term. Required of Engineering Sophomores. Six hours a week, second term. Required of Industrial Education Seniors.* Mr. BROADFOOT and Mr. MONTGOMERY.

33a. Forge Work.—Prerequisite to 33b. A study of forgecraft, forge tools and fires. This course requires the use of hand tools for elementary work, such as cutting, bending, shaping, drawing, upsetting and welding different grades of wrought iron and mild steel. *Four hours a week, first term.* Text: Book Forgecraft. *Required of all Engineering Sophomores.* Mr. LUCAS.

33b. Forge Work.—A continuation of 33a. Machine forging, tool smithing, hardening, case hardening, annealing and tempering. The metallurgy of furls, iron and steel, is briefly considered. Compressed air blast, the use and care of furnace fires, the effect of high temperature on the structure of steel, and the treatment of high speed tools. *Four hours a week, second term.* Text Book Forgecraft. *Required of Engineering Sophomores.* Mr. LUCAS.

14. Forge Work.—The same as No. 33a. With practical work pertaining to the farm. Forging chain links, hooks, open rings, and treating the materials of which the metal parts of agricultural implements are made. *Four hours a week, second term, for Agricultural students. Required in Agricultural Short Course.* Text Book Forgecraft. Mr. LUCAS.

76. Forge Work.—The same as Nos. 33a and b. Ornamental iron work, scrolls and useful household articles such as andirons, fire sets, flower stands, and piano lamp holders may be made instead of the machine forgings and high speed tools. Text Book Forgecraft. *Recitation one hour, and two three-hour periods in the laboratory. Required of Industrial Education Juniors.* Mr. LUCAS.

34. Foundry.—A course for Engineering students, involving the simple principles of foundry practice with patterns made by the students. The work consists of small articles, such as light machine parts, and the stock pieces used for exercise work in the machine shop. A sufficient variety is introduced for the student to acquire a good general knowledge of the usual methods and appliances used in light foundry work. Most of the work is in green sand in two part flasks, but some core work and more complicated work is introduced to illustrate the processes in advanced foundry work. Instruction is given in operating the cupola and in pouring. Foundry practice is supplemented by notes on the metallurgy and working of the metals used in the industrial arts. *Four hours a week, third term. Required of Engineering Sophomores and Industrial Education Seniors.* Mr. LUCAS.

35. Machine Shop.—A course in machine work including bench work, drilling, tapping, chipping, and filing, with some light exercises on lathe, shaper, and milling machine. Preparation of bearings, disassembling and assembling several types of machines.

There will also be offered instruction in maintenance of power transmission machinery, the correct application of shop terms in the machine business, use of accurate measuring instruments, proper method of ordering shop machinery and tools, some practical applications of mathematics to the machine shop and reading working drawings. *Lectures one hour a week, shop work six hours a week, second and third terms. Required of Industrial Education Juniors.* Mr. GILES.

39. **Machine Shop.**—A course in machine work involving the use of hand tools at the vise in chipping, cutting, filing, and pipe fitting. This is followed by lathe work which is taught by a series of exercises, including straight and taper turning, grooving, facing, thread cutting and finishing. Following this the use of other machine tools is taught including gear cutting on the milling machine. *Four hours a week, three terms. Required of Mechanical and Electrical Juniors.*

Mr. GILES.

47. **Machine Shop.**—Prerequisite 39. A continuation of course 39 involving the more advanced use of machine shop tools, the preparation of bearings, eccentrics, crank-shafts, complex gearing, and repairs to machinery. *Four hours a week, three terms. Required of Mechanical and Electrical Seniors.* Mr. GILES.

64. **Engineering Mechanics.**—A course leading up to general engineering design and embracing: (1) A study of the various mechanisms employed in machine construction; (2) the theoretical design with regard to strength of the elements of machines and other structures such as beams, girders, shafts, cylinders, etc. Accompanying this course, is a course in the strength of materials laboratory where the principles studied in the class room are illustrated by the use of testing machines. *Class room work, two hours a week, for three terms. Required of Mechanical and Electrical Engineering Juniors.*

Professor CARPENTER and Mr. FOX.

37. **Machine Drawing.**—Prerequisite, all required drawing in Freshman and Sophomore class. Practical work on the drawing board, designed to familiarize the student with elements of machines, and later the combinations of the elements into complete machines. The drawing room methods of the leading manufacturing plants are followed closely. The principles of design studied in the class room are applied, and details are designed with special regard to economy in manufacture. *Three hours a week, three terms. Required of Mechanical and Electrical Juniors.* Mr. FOX.

65. **Mechanical Engineering.**—Steam engines and steam boilers. Lectures and recitations on the generation of steam, the design, construction, operation, and testing of boilers of different types, together with the necessary boiler plant accessories. This is followed by a study of the elementary thermodynamics of the heat engine, and the mechanics, design, construction, operation, and testing of the steam engine. *Class room work, three hours a week, three terms.* 65*b*. *Laboratory work, three hours a week, three terms. Required of Mechanical and Electrical Engineering Juniors.* Professor CARPENTER.

66. Engineering Design.—Prerequisite, Mechanical Engineering 37 and 64. This course embraces a study of the design of steam boilers, steam engines, pumping machinery, etc., with reference to strength, speed regulation, construction, and economic operation, also a study of the design and arrangement of power plants. *Class room three hours a week, two terms.* 66*a*. *Practice, three hours a week, three terms. Required of Mechanical Engineering Seniors.*

Professor CARPENTER and Mr. FOX.

67. Engineering Design.—This course is the same as 66, but the amount of work required is reduced in proportion to the amount of time given to the subject. *Class room, three hours a week, one term.* 67*a*. *Practice, three hours a week, three terms. Required of Electrical Engineering Seniors.*

Professor CARPENTER and Mr. FOX.

68. Heating and Ventilation.—The different methods of heating and ventilation of buildings are studied. Special attention is given to the design and operation of the different systems. *Two hours a week, one term. Required of Mechanical Engineering and Electrical Engineering Seniors.* Professor CARPENTER.

69. Plumbing and Sanitation.—This is a short descriptive course consisting of lectures on plumbing, fitting, fixtures, and combinations and the correct installation of the same, including vents, drains, etc. *Two hours a week, one term. Required of Mechanical Engineering Seniors.*

Professor CARPENTER.

70. Steam Turbines.—This is a descriptive course and gives attention to the construction and operation of the different types of steam turbines as used in the modern large power plants. *Two hours a week, one term. Required of Mechanical Engineering Seniors.*

Professor CARPENTER.

71. Gas Engines and Gas Producers.—This subject is taught by the use of text-book, lectures, manufacturers' catalogues and drawings, and gives attention to the construction and operation of gas engines and producers as used in modern gas producer power plants. *Three hours a week, one term. Required of Mechanical Engineering Seniors.*

Professor CARPENTER.

72. Mechanical Refrigeration.—A study of the principles of construction and operation of the several ice-making systems in use, also a study of the design and installation of cold storage compartments. An ice and cold storage plant is a part of the central power plant equipment, and a complete test of this plant is required. *Two hours a week, one term. Required of Mechanical Engineering Seniors.*

Professor CARPENTER.

73. Mechanical Engineering.—A descriptive course consisting of lectures and quizzes on the operation of steam boilers, steam engines, and gas engines, together with discussions on heating and plumbing, as applied to the Manual Training School. *One hour a week, one term. Required of Pedagogical Juniors.* Professor CARPENTER.

77. **Mechanical Laboratory.**—This course includes work in testing the strength of materials, as iron, steel, wood, and cement in tension, compression, and transverse loading. *Three hours a week, one term. Required of Civil Engineering Seniors.* Mr. FOX.

78. **Mechanical Laboratory.**—This course consists of fuel analysis, oil and lubricant testing, and indicator card analysis. Also test of engines, boilers, steam turbines, gasoline engines, and complete tests of power plants. *Three hours a week, three terms. Required of Mechanical Engineering Seniors. Three hours a week, one term. Required of Electrical Engineering Seniors.*

Professor CARPENTER and Mr. FOX.

EQUIPMENT.

The wood shop equipment for bench work consists of excellent work benches supplied with quick acting vises, saws, planes, chisels, etc., ordinarily found in a carpenter's kit, and a large number of supplementary tools kept in the tool-room. The equipment for wood turning consists of small lathes and tools for general work and a large pattern-maker's lathe for special work. A large room is provided for power machinery and contains a rip saw, cut-off saw, surface planer, moulding machine, resaw jointer, band and jig saw. A paint room and store room is provided for the finishing of articles and the storing of the complete product.

The forge shop equipment is modern, consisting of twenty-four down draft forges and the necessary hand tools. The shop is also provided with a punch and shear, angle bender, grinder, and floor tools, such as cone, surface plater, swage block, etc.

The foundry is equipped with cupola melting furnace, brass furnace, core oven, and the usual molders' tools.

The machine shop has a good equipment of bench tools and a large assortment of small machine tools similar to those used in a modern machine shop, various types and sizes of engine lathes, one planer, one shaper, one drill press, two sensitive drills, one power hack saw, two centering lathes, one milling machine, one portable crane hoist, two emery grinders and one grind stone.

This shop also has a steam engine and speed lathe for demonstrations in assembling.

A tool and store room adjoins the machine shop.

The engineering laboratory contains a one hundred thousand pound Olsen testing machine fitted for tension compression, and transverse testing of materials, a fifty-thousand pound torsion testing machine and apparatus for testing cement, oils, fuels, and flue gases. The laboratory also contains Westinghouse air brake appliances, steam engines, gas engines, pump, steam turbine, condenser, injectors, water motor, hydraulic ram, and hot air engines with the necessary instruments and apparatus for testing the same.

In addition to the laboratory, the Mechanical Engineering Department has charge of the central water, light, power and heating plant, the equipment of which is available for test purposes. The plant consists of five Sterling water tube boilers, one Babcock and Wilcox water tube boiler, simple and compound, high speed, automatic engines, Corliss engine, air compressors, pumps, a ten-ton ice making and cold storage plant, and other power plant accessories. Students are employed in maintaining the power plant service as night fireman on three hour shifts, and as heat and plumbing attendants in the dormitories and other college buildings, thus assisting a limited number of students to pay a portion of their expenses and giving them valuable experience in power plant work.

METALLURGY.

See Geology and Mining Engineering.

MILITARY SCIENCE AND TACTICS.

Professor FARRELL.

For the purpose of discipline and practical instruction the cadets are organized as a regiment of infantry with three battalions of four companies each, and a band and bugle and drum corps, with the usual cadet officers and cadet non-commissioned officers for line and staff. All dormitory and mess-hall cadets are located in the dormitory by companies, and are at all times under the supervision of their company officers and non-commissioned officers. The cadet officers and cadet non-commissioned officers of the corps are selected from those having the strongest moral characters, who have been active and soldier-

like in the performance of duty, and exemplary in their general deportment, with due regard for academic standing and length of service in the corps. Ordinarily commissioned officers are appointed from the Senior class, sergeants from the Junior Class, and corporals from the Sophomore class.

The regiment is under the command of the Commandant of Cadets, who is given the honorary rank of Colonel, through whom discipline is maintained in all departments. The cadets are at all time under military control, and are thus taught habits of promptness and obedience to lawful authority, which will be of great value to the communities to which they belong. Members of the higher classes also learn to control others by exercising lawful authority over them, and are thus fitted for greater responsibilities at home and as citizens of the state.

The course of instruction is both theoretical and practical.

THEORETICAL COURSES.

1. **Drill and Guard Duty.**—U. S. Infantry Drill Regulations to include the School of the Soldier, Squad, Company and Battalion, in Close and Extended Order, Advanced Guard and Outpost Duty, Marches, Camping, and Ceremonies. U. S. Guard Manual to include the duties of sentinels, non-commissioned and commissioned officers of the guard and officer of the day; manual of the bayonet; Field Service Regulations to include "Organization," "The Service of Information," and "The Service of Security," and Small Arms Firing Manual to include "Position and Aiming Drills." *Four hours per week. Required of all Agricultural, Industrial Education, and Engineering cadets in their Sophomore year and General Science Cadets in their Freshman year.*

   Professor FARRELL.

2. **Military Science.**—In view of the fact that very few of the cadets ever go into the regular service, but that a large number do go and are now in the National Guards of the state, the course in military science will include, in the form of conferences or lectures, such things as the Guard most needs, and a knowledge of which is now lacking. This part of the course includes such subjects as Military courtesy, discipline, Military correspondence, forms that the National Guardsmen will be called on to prepare and understand, extracts from Field Service Regulations, and the Firing Regulations, and the care of the rifle and the equipment furnished by the state and Government. In detailing an officer of the army on duty at this college the U. S. Government requires that instruction in this department shall qualify all cadets of the graduating class to serve as company officers in the National Guards or Volunteers.

PRACTICAL COURSES.

3. **Infantry Drill.**—(a) Drill in the School of Soldier, Squad, Company and Battalion, in close and extended order, ceremonies, advanced guard and outpost duty. *Two hours per week during three terms, a minimum of* 168 *hours required for graduation. Required of all able bodied cadets, except Seniors who have completed the minimum.* (b) A. M. Drill for fifteen minutes each morning (Sundays, rainy and cold days excepted), immediately preceding breakfast, at which time special attention is given to the physical training of the cadet by means of the setting-up exercises and calisthenic exercises as prescribed in the various regulations and manuals.

   Professor FARRELL and all Cadet Officers.

4. **Guard Duty.**—Guard-mounting, daily, and sentinels posted over dormitories during meals and chapel exercises on Sundays. *Required of all dormitory cadets when detailed.*

   Professor FARRELL, the Cadet Adjutant, the Officer of the Day and the Officer of the Guard.

5. **Target Practice.**—Preliminary position and aiming drills, a limited preliminary practice at short ranges and at least two (2) practices scores and two (2) record scores at 200, 300, 500, and 600 yards. *Required of all able-bodied Juniors.*

   Professor FARRELL.

For the above practical instruction the United States has provided the college with 800 U. S. magazine rifles, calibre .30, and infantry accourtrements, also a liberal allowance of ammunition, including both ball and blank cartridges for small arms. For course 5 the United States has provided a number of the very latest model rifles—these are the best military rifles in the world.

MINERALOGY.

See Geology and Mining Engineering.

MINING ENGINEERING.

See Geology and Mining Engineering.

MODERN LANGUAGES.

Professor BOWEN.
Associate Professor TOWLES.

The aim of this Department is to teach the German, Spanish, and French languages in such a way that they may be of

practical value to the student after he leaves college, enabling him to make use of the wealth of information in these languages which is not available in English. This ability is of prime importance to every one who wishes to be thoroughly grounded in the sciences taught at this institution.

In addition to this, the cultural value of the studies is stressed as far as is compatible with the very practical aim of these courses. Much oral work is done, and a correct pronunciation is insisted upon. The department is provided with maps, and a set of Hoelzel pictures, for use as a basis of conversation. A combination stereopticon and reflectoscope is in frequent use. The department library contains a number of excellent dictionaries and encyclopedias, a full collection of the authorities on phonetics, historical grammar and philology, and a large collection of monographs in German on the various scientific fields of study in which our students may be interested. Scientific reading forms a part of all courses. Sight reading is developed very fully.

Scientific German.—A course in Scientific German is now offered which will be of incalculable value to all those who expect to become trained chemists, botanists, geologists, engineers, or agriculturalists. This course has been worked out with especial care, and places this college in line with the other agricultural and mechanical colleges in this respect. It is especially arranged for General Science students, but it may be elected by Agricultural Seniors in the regular course, and by others as a special subject.

Students of Medicine.—The attention of those students who expect to attend medical college after graduating here is especially called to the fact that all first rank medical schools now require at least one year of a modern language for entrance. Students should so arrange their course here that they may take advantage of the work offered in this department.

Spanish.—A three-year course in Spanish is offered. The people of the Southern States are going to be brought more and more into contact with Central and South America, and Spanish will be a valuable asset. Students in the course in Business Administration should choose this course.

Master of Science.—This department is authorized to offer courses leading to the degree of Master of Science, and attention is called to courses below.

Elective Courses.—All courses are open to all students of the college who have the required prerequisite training.

FRENCH.

14. **Elementary French.**—This is a course leading to the reading of the best literature, and a knowledge of the customs and modes of thinking of the French. The essentials of grammar are stressed, and reading is begun early. Composition will be begun. *Five hours a week, three terms. For Industrial Education and General Science Juniors. Open to all.* Mr. TOWLES or Professor BOWEN.

16. **Advanced French.**—A continuation of course 14. The best prose and verse will be read, including some selections from scientific and commercial books, and newspapers. The history of French literature will be treated briefly. *Five hours a week, three terms. For Industrial Education and General Science Seniors. Open to all who have credit for course 14 or its equivalent.* Professor BOWEN.

GERMAN.

18. **Elementary German.**—This is a course leading to the reading of the best literature, and a knowledge of the customs and ideals of the Germans. The essentials of grammar and composition are stressed and reading is begun early in the course. *Five hours a week, three terms. For Industrial Education Juniors. Open to all.* Mr. TOWLES.

20. **Advanced German.**—A continuation of course 18. The best prose and verse will be read. The history of German literature will be treated briefly. *Five hours a week, three terms. For Industrial Education Seniors. Open to all who have had course 18 or its equivalent.* Professor BOWEN.

25. **Elementary Scientific German.**—A brief course in the grammar, with elementary reading, will occupy the first and second terms. The third term will take up the reading of Scientific German, stress being laid upon the accurate rendering of the finer shades of meaning, so that students may be given confidence in handling reference works and laboratory manuals in German in their courses in other departments. *Five hours a week for three terms. For General Science Juniors. Agricultural Seniors, and Industrial Education Juniors. Open to all.* Professor BOWEN.

39. **Scientific German.**—Prerequisite, course 18 or 25, or their equivalent. Reading of advanced texts in chemistry, botany, zoology, geology, and agriculture. *Five hours a week, three terms. For General Science Seniors. Open to all.* Professor BOWEN.

SPANISH.

41. **Elementary Spanish.**—This course will give the essentials of grammar, with a great deal of elementary reading. *Five hours a week,*

three terms. For Industrial Education and General Science Juniors. Open to all. Professor BOWEN.

42. **Elementary Spanish.**—A brief course covering the essentials of the grammar, and elementary reading. *Three hours a week for three terms. For Business Administration Sophomores. Open to all.*

Professor BOWEN.

43. **Second-Year Spanish.**—A continuation of course 42. Composition and advanced reading. *Three hours a week for three terms. For Business Administration Juniors. Open to all.*

Professor BOWEN.

(In 1916-17, Course 42, and 43 will also be combined and given as one six-hour to Business Administration Juniors.)

44. **Advanced Spanish.**—Reading of the best prose and verse. Composition. *Five hours a week for three terms. For Industrial Education, Business Administration, and General Science Seniors. Open to all. Prerequisite, Course* 41, *or* 42 *and* 43, *or their equivalent.*

Professor BOWEN.

45. **South American Problems.**—Advanced course in commercial Spanish, with lectures on the geography, history, education and commerce of Central and South America, and the interest of the United States in these problems. This course is given in connection with Couse 44. *Three hours a week for the first term. For Seniors in the course of Public Affairs.* Professor BOWEN.

ELECTIVE AND GRADUATE.

32. **General Introduction to the Science of Language.**—*Prerequisite, 15 course hours of some language other than English.* A study of the mechanism of speech; the sounds which occur in English and in French, German and Spanish; the various systems of phonetic characters and diacritics. The second half-term will be devoted to a discussion of the origin of language; the various grammatical categories; morphology; the reasons for the development of the various parts of speech in English and other languages. This course will be of value to those who intend to teach, as it will present the phenomena of reading and grammar from a new point of view. It will be a great aid also in the study of any of the modern languages. *One term, three hours recitation, and four hours lectures and laboratory practice. Open to all students prepared to take the course.* Professor BOWEN.

36. **Science of Language, Advanced Course.**—This course will take up more in detail the work of the second half term of course 32. The general rules there developed will be compared with those of the language the student has studied in his required course in this department, and these rules will be demonstrated in the study of Esperanto, which is a language without grammatical exception, and, therefore, well adapted to illustrate grammatical theory. Because of its rapid spread as an auxiliary language throughout the world, and its rapidly increasing use as a medium of recording and communicating scientific achievement, the language is well worth studying for its own sake. Some attention

will also be given to semantics. This course is especially valuable to prospective teachers. *Five hours a week, for two terms. Open to all.*

Professor BOWEN.

37. **Philology.**—(*Graduate course*).—Advanced work in phonetics, morphology, and semantics. The student may specialize in either the Germanic or the Romance field. This course will be offered as a course leading to the degree of Master of Science, and students wishing to take it must have had at least two years of undergraduate work in the language in which they wish to specialize. The work will require a large part of the student's time for at least one year. *Informal. Hours to be arranged.*

Professor BOWEN.

38. **Scientific Reading** (*Graduate Minor course*).—In exceptional cases, students who have had the equivalent of two years of undergraduate work will be given a course of reading in either Scientific German or Scientific French, on subjects bearing on the work of their major course. The work will require one-third of the student's time for at least one year. *Informal. Hours to be arranged.*

Professor BOWEN.

40. **European Literature.**—A brief course intended to acquaint the student with the leading writers in German, French, Spanish and Italian. Lectures, recitations and reports from students on work assigned. Translations will be used, and a knowledge of other languages than English, though desirable, is not required. *Two hours a week in class, six hours lectures and laboratory. Two terms. Open to all.*

Professor BOWEN.

MUSIC.

Mr. LEAKE.

As a means of developing the aesthetic nature of the student and of training the sensibilities of the people of Mississippi the Department of Music ranks beside the Department of English. Through class exercises, accompainments at military formations, concerts on the campus and elsewhere, the department trains the members of the band and the orchestra, in some degree the entire student body, and many persons throughout the state to appreciate patriotic airs, to apprehend the masterpieces of Handel, Bach, and Beethoven, and to assist in creating a musical atmosphere throughout Mississippi.

Students in the Department of Music are trained to play creditably in any first-class town band, military band, or concert orchestra. They are, moreover, fitted to enter any of the conservatories of this country and complete the course in from one to three years. The students are therefore enabled materially to take active and prominent part in the great revolution

which is beginning to convert soul-sleeping America into a music-loving people.

Students who play an instrument should upon entering college enroll with the Director of Music, as members of the band. Those with musical talent, but no knowledge of any band instrument, should enroll with the Director, receive private instruction, and when sufficiently proficient become members of the orchestra or the band. Though the band includes more than fifty musicians, the talented student will always be able to take active part in concerts.

PHILOSOPHY AND SOCIOLOGY.

GROUP ONE.

Professor BRUNSON.
Associate Professor SNOW.
Miss FOSTER.
Mrs. MARSHALL.
Mr. MONOSMITH.

9. **Psychology.**—The laws of the mind are studied in their relation (1) to the physical organism; (2) to their logical issues in human conduct; and (3) to the rational interpretation of mental phenomena. The work is based upon the discussion of Angell, his views being thoroughly discussed and compared with those of Dewey, James, etc. The text is Angell's Psychology. James's larger work, and the works of Dewey, etc., are used as references. *Three hours per week for three terms. Required of Pedagogical Sophomores, and Business Administration Juniors.*

Professor BRUNSON or Associate Professor SNOW.

9a. **Experimental Psychology.**—Two hours a week during the third term will be required of Sophomores of the Division of Education in experiments which will prove of value to the prospective teacher in understanding the nature and impulses of children of different ages; the study of causes of delinquency, truancy, and the relation between physical defects and backwardness in school work. *Two hours laboratory, third term. Required of Industrial Education Sophomores.*

Professor BRUNSON.

10. **The History of Education.**—This course deals with the rise and growth of educational theory as found in the records of the great nations that have held sway upon the earth; it traces the development of systems of education among the ancient nations, in the middle ages, and in the modern times; it shows the relation of these systems to the national ideal, their bearing upon each other; and seeks to point out their influence in shaping the educational practice of the present time.

The text book is Monroe's A Brief Course in the History of Education. *Five hours per week, one term. Required of the Pedagogical Seniors.*

Professor BRUNSON.

11. **The Educative Process.**—A study of the functions of education; of the acquisition of experience; of the functioning of experience; of the organization and recall of experience; of educational values; and of the transmission of experience and the technique of teaching. The text-book is Bagley's The Educative Process. *Five hours per week for one term. Required of all Pedagogical Juniors.*

Professor BRUNSON.

12. **Class-Room Management.**—A consideration (1) of the routine factors of class room management, such as habit, starting right, mechanical devices, the daily program, attendance, hygienic conditions, order and discipline, penalties; (2) of judgment factors in class room management, such as attention, the technique of instruction, the "Batavia System," testing, disposition of the teacher's time, etc., etc. The text is Bagley's Class Room Management. *Five hours per week for one term. Required of the Pedagogical Juniors.*

Professor BRUNSON.

13. **Sociology.**—This course will be based on a substantial text, and supplemented by references and lectures. It is designed to introduce students to the fundamental principles underlying the science of sociology, and to awaken them to a knowledge of the social forces and the principles of social well-being, with a view to making them socially efficient citizens. Special reference will be had to American, and particularly to Southern, conditions, past and present. *Five hours a week, one term. Required of Pedagogical Juniors.* Professor BRUNSON.

14. **Logic.**—A course is offered in both Deductive and Inductive Logic, a study of the best designed operations of the human mind in its search for truth; an acquaintance with common fallacies in thinking and reasoning. The course will be based on Creighton's Introduction to Logic. *Required of Pedagogical Seniors, one term.*

Professor BRUNSON.

15. **Ethics.**—A carefully selected text will serve as the body of this course. It will be sought to develop the power, and to form the habit of inquiring into the ethical basis of conduct; the development of the will and conscience. *Required of Pedagogical Seniors, one term.*

Professor BRUNSON.

16. **Rural and High Schools.**—This course is designed to deal with school conditions. It will include a treatment of many of the problems that the teachers of the state have met, are meeting, and will meet in the future. A text-book will be used supplemented by such references as seem advisable. *Required of all Pedagogical Freshmen two hours per week, first, second, and third terms.*

Associate Professor SNOW.

18. **The History of Educational Theory.**—This course will be a study of the writings and ideas advanced by the leading educational theorists of all the historic centuries. The following will be some of the char-

acters to be studied in detail: For the Greek period, Socrates, Plato, and Aristotle; period of the revival of learning under Charles the Great, Alcuin, Rabanus Maurus; the Renaissance, Erasmus, and Roger Ascham; period of realistic education, Francis Bacon, Rabelais, Montaigne, and Comenius; period of disciplinary conception of education, John Locke; the naturalistic tendency in education, Rousseau; psychological tendency in education, Kant, Pestalozzi, Herbart, and Frobel; scientific tendency, Herbert Spencer; sociological tendency, Horace Mann. The method of this course will be lectures by the instructor, and reports by the members of the class upon assigned topics. *Elective. For Junior Pedagogical students, first, second and third terms, also open to graduate and special students in Education.*

Professor BRUNSON.

19. **The History of Education in the United States.**—This will be a lecture and text-book course. Special reference will be had to developments in public education in Mississippi. Present tendencies in education in the United States will receive careful attention, especially with reference to vocational and industrial education in various commonwealths. *Elective for Pedagogical Seniors, first term. Also open to graduate and Special students in Education.* Professor BRUNSON.

20. **A Study of the Educational Systems of the Leading Foreign States of the World.**—This will include a detailed study of the school system of the German Empire; of France; Switzerland; and of the Japanese Empire. Special attention will be directed to vocational and industrial training in the several states named. The method will be lectures by the instructor and reports on assigned topics by the members of the class. *Elective for Pedagogical Seniors, second and third terms. Also open to graduate and Special students in Education.*

Professor BRUNSON.

21. **Rural Sociology.**—A study of social conditions in rural life; movements of rural population; physical environment of rural life; isolation, means of communication; rural occupation; the family and woman's position in the country; the country school, church and race problems. Effort will be made to work out a constructive program with reference to all these vital conditions. *Required of Industrial Education Seniors who are taking the course in Business Administration. One term, five hours per week.* Professor BRUNSON.

22. **Ethics Applied.**—This course will include the application of ethical standards to the various vocations in life, professional and non-professional; inquiry will be had into the customary standards in business and professional conduct with a view of reweighing and revaluing prevailing standards. *Industrial Education Seniors, one term, five hours per week.* Professor BRUNSON.

GROUP TWO.

PRACTICE TEACHING, SCHOOL GARDENING, ETC.

23, 24, 25—**Practice Teaching, School Gardening, Etc.**—Two hours a week will be required of Junior Industrial Education students in practi-

cal work vitally connected with teaching and school gardening. It will consist of seed selection and germination, soil preparation and fertilizers for gardens, study of the plant, garden pests, laying out garden plots for schools, hot beds, etc.

26, 27, 28—Special Method.—For Industrial Education Seniors who expect to teach, a study of the best method of presenting the fundamental school subjects will be required. Each student will be expected to do some practice teaching in application of the most approved method to primary, intermediate, and high school subjects.

OUTLINE OF GRADUATE COURSES.

Advanced course in Psychology; course in Educational Psychology; study of the development of the child mind with reference to the periods in child development.

Advanced course in the History of Education, both Ancient and Modern; History of Education in the United States; History of Education and the Development of the School System in Mississippi; Comparative study of State School Systems in the Leading States of the World, and of the Commonwealths of the United States.

Course in School Administration; Present Tendencies in Education.

Advanced course in Sociology; An Inquiry into the Local Sociological Problems of the United States; the Sociological Aspect of Education.

PHYSICS.

Professor MOODY.
Assistant Professor McMURTRAY.
Mr. HOWELL.

In a study of natural phenomena, we are brought to realize that this is a world of change. In every change, however, Energy, the subject matter of Physics, is involved. The fundamental ideas dealt with in the science of Physics constitute the foundation for all the natural sciences and for many lines of, commercial activity. The importance of its study can therefore, scarcely be over estimated, either from the practical point of view or from that of the seeker after pure knowledge.

For the beginner in the science and for prospective students in Agriculture, where time prevents a more extended

course, an elementary course is given. In this course, the elements of the subject in all its phases are touched upon. To those who are looking forward to teaching as a profession and to those who are interested in Physics as a pure science, introductory to or correlated with other sciences, a more advanced course is offered.

Since Engineering in all its branches is dependent upon a thorough knowledge of Physics and may be defined as the practical application of physical laws, a clear understanding of physical phenomena and the laws which govern them must precede the more technical studies of the engineering profession. It is the object of the general course, as given to Engineers, as to other students, to give familarity with the experimental facts as well as with the quantities used in Physics and with the elementary theory and methods of calculation. Special stress is laid upon the subjects of Mechanics, Heat, and Electricity and many problems are studies from the view point of the Engineer.

SUMMER COURSES.

Below are listed four courses especially planned for the Summer School student. The courses are elementary and are planned to prepare teachers for examinations and teaching in elementary schools, prepare others for entrance into Colleges where Physics is either required or allowed as an entrance unit. The Department reserves the right to decide which of these course will be offered in any particular summer. Announcement will be made in the Summer School Bulletin.

1. **Physics.**—Elementary Mechanics and Heat: This course covers the subjects of mechanics of solids and liquids and heat. Recitations will be held six times per week. Laboratory work will accompany the recitations, on problems related to the matter covered in the recitations. *Laboratory time four periods per week. Credit four hours.*
2. **Physics.**—Elementary Wave Motion, Sound and Light: An elementary course covering the subjects mentioned. This course logically follows Physics 1, and has the same arrangement of time for recitation and laboratory work. *Credit four hours.*
3. **Physics.**—Elementary Electricity and Magnetism: An elementary course covering the subjects mentioned. This logically follows Physics 2 and has the same requirements of time for recitation and laboratory work as Physics 1. *Credit hours hours.*

4. **Physics.**—Pedagogical Physics: A course for Teachers. It is planned that this course shall serve as a review and, at the same time, afford an opportunity for study of Physics from the teaching standpoint. It will comprise demonstration lectures, discussions, and critical reports upon teaching problems and texts of Elementary Physics. *No credit.*

UNDERGRADUATE COURSES.

The following group of courses includes those to which the regularly matriculated student is admitted.

5a. **Physics.**—An elementary course in physics covering the subjects of Mechanics, Heat, and Sound. This is a course for general information, stressing such parts as are of practical importance to agricultural students. It consists in lectures, accompanied by demonstrations, recitations, and practical problems. *Three hours per week during winter term. Required of Agricultural Freshmen. Credit three hours.*

Assistant Professor McMURTRAY.

5b. **Physics.**—A continuation of 5a and covering the subjects of Light, Electricity and Magnetism. *Three hours per week during spring term. Required of Agricultural Freshmen. Credit three hours.*

Assistant Professor McMURTRAY.

6a. **Physics.**—Elementary Physical Laboratory: A laboratory course accompanying course 5a and *required of all those taking that course.* This course includes experiments in Measurements, Mechanics, and Heat. *Two hours per week during the winter term. Required of Agricultural Freshmen. Credit, one hour.*

Professor MOODY and Assistant Professor McMURTRAY.

6b. **Physics.**—Elementary Physical Laboratory: A continuation of course 6a and including experiments in light and electricity. *Two hours per week during spring term. Required of Agricultural Freshmen. Credit, one hour.*

Professor MOODY and Assistant Professor McMURTRAY.

7a. **Physics.**—General Physics: This course is a more advanced course in Mechanics, Heat and Sound, and is suited to the needs of those students not taking the subject as preparatory to engineering work, but as a more general scientific training. It consists in lectures, demonstrations, lantern illustrations, recitations, and problems, without special stress upon any one part. *Five hours per week during fall term. Required of Sophomores in General Science School. Prerequisite: Freshman Mathematics. Credit, five hours.*

Assistant Professor McMURTRAY.

7b. **Physics.**—General Physics: A continuation of course 7a and covering the subjects of Light and Electricity. For description, requirements, and credits, see course 7a.

Assistant Professor McMURTRAY.

8a. **Physics.**—General Physical Laboratory: A practical course accompanying 7a and required of all those taking that course. The laboratory

work follows the theoretical as explanation and proof and consists of a number of experiments in Mechanics, Heat, and Sound. *Four hours per week during the fall term. Credit two hours.*

Professor MOODY and Assistant Professor McMURTRAY.

8b. **Physics.**—General Physical Laboratory: A continuation of course 8a and embracing experiments in Light and Electricity. For description, requirements, and credits, see 8a.

Professor MOODY and Assistant Professor McMURTRAY.

9a. **Physics.**—Engineering Physics: This course covers the first third of a year course in College Physics for Engineering Students. The subjects of Mechanics and Heat are covered in this term. The work includes lectures, accompanied by demonstrations, lantern illustrations, recitations, solutions of problems. The interest of the student is sustained by making the illustrations and problems as practical as possible. *Five hours per week during fall term. Required of Engineering Sophomores. Prerequisite: Freshmen Mathematics. Credit five hours.*

Professor MOODY.

9b. **Physics.**—Sound and Light for Engineers: This course is the second third of a year course for Engineers. For plan, prerequisites, and time, see course 9a. Professor MOODY.

9c. **Physics.**—Electricity and Magnetism for Engineers. This course completes the year course for Engineers. For plan, prerequisites, see course 9a. Professor MOODY.

10a. **Physics.**—Physical Laboratory for Engineers: This is the practical course, accompanying course 9a. It follows closely the theoretical work and is intended to give practice in the use of standard apparatus and training in making of physical measurements. Special stress is laid upon Mechanics, dealing with problems of practical value to Engineers. In addition, it includes experiments in calorimetry, thermometer calibration, expansion, etc. *Four hours per week during the fall term. Required of all Engineering students.*

Professor MOODY and Assistant Professor McMURTRAY.

10b. **Physics.**—Physical Laboratory for Engineers. This course accompanies course 9b and includes experiments on velocity of sound, laws of strings, photometry of various types of modern illuminants, laws of lenses and mirrors, velocity of light. *Four hours per week during the winter term. Required of all Engineers.*

Professor MOODY and Assistant Professor McMURTRAY.

10c. **Physics.**—Physical Laboratory for Engineers: This term's work is given up entirely to the important experiments in Electricity and Magnetism. Among the problems studied are magnetic fields, e. m. f. of cells and metals, Ohm's law in its many phases, resistance, theory of shunts, telegraph, telephone, efficiency of lamps, dynamos and motors. *Four hours per week during the spring term. Required of Engineers. Credit two hours.*

Professor MOODY and Assistant Professor McMURTRAY.

11a. **Physics.**—A general course in Physics, similar in content to 7a except

that it is less extensive. *Three hours per week during fall term. Required of Sophomores in Industrial Education. Credit three hours.*
Professor MOODY and Assistant Professor McMURTRAY.

11b. Physics.—A continuation of Physics 11a and similar to Physics 7b except that it is shorter. *Three hours per week during winter term. Required of Sophomores in Industrial Education. Credit three hours.*
Professor MOODY and Assistant Professor McMURTRAY.

12a. Physics.—A laboratory course to accompany 11a and required of those taking that course. Similar to Physics 8a, (see above). *Four hours per week during fall term. Required of Industrial Education Sophomores. Credit two hours.*
Professor MOODY and Assistant Professor McMURTRAY.

12b. Physics.—A continuation of Physics 12a, and similar to Physics 8b. *Four hours per week during winter. Required of Industrial Education Sophomores. Credit two hours.*
Professor MOODY and Assistant Professor McMURTRAY.

ELECTIVE COURSES.

The following courses have been planned for those who have completed one of the Sophomore courses in general Physics and desire to make more extensive study of some particular section of the science.

21. Physics.—Advanced Mechanics: A course dealing with problems in elasticity, impact, inertia, simple harmonic motion, etc. This course will include theoretical discussions of laboratory problems studied, followed by experimental investigation. *Open to all Juniors and Seniors in fall term. Prerequisites: Physics 9a or 7a and Sophomore Mathematics. Time and credit to be arranged.*
Professor MOODY.

22. Physics.—Advanced Heat: A course dealing with problems in heat measurement; pressures of saturated vapors; density of gases and vapors, heat value of solids and gases, thermal conductivity, etc. The plan of lectures on theory of experiments and the experimental work is similar to Physics 21. See above. *Open to all Juniors and Seniors in spring term. Prerequisites: Physics 9b or 7 and Sophomore Mathematics. Time and credit to be arranged.*
Professor MOODY.

23. Physics.—Advanced Light: A course dealing with problems in photometry, optical instruments, spectrometry, gratings, polarization, etc. The plan of lectures and laboratory work similar to Physics 21. See above. *Open to all Juniors and Seniors in spring term. Prerequisites: Physics 9b or 7 and Sophomore Mathematics. Time and credit to be arranged.*
Professor MOODY.

24. Physics.—Electrical Measurements: A course dealing with measurement of resistances of various kinds and amounts, by various methods,

e. m. f., P. D., capacity, permeability and hysteresis, thermoelectric currents, self induction, etc. *Open to all Juniors and Seniors in winter term. Prerequisites: Physics 9c, and Sophomore Mathematics. Time and credit to be arranged.* Professor MOODY.

Equipment.—The Department of Physics occupies a suite of rooms upon the second floor of the south wing of the Engineering building. This suite consists of office, two lecture rooms, a store room, a large, well lighted general laboratory room, a small laboratory room for special work, and dark rooms for photometric and photagraphic work. The equipment for both theoretical and practical work is thoroughly modern. The apparatus has been purchased to make possible a thoroughly practical course and additions are being constantly made. The lecture rooms are equipped with shades for darkening the rooms and with projection apparatus for optical demonstrations as well as for lantern slides and opaque projection. Lantern illustrations are made a feature of the work. The lecture tables have connections for water, gas, and electricity. The department is supplied with lecture room apparatus for demonstration purposes. In the laboratory work, much stress is laid upon individual work. Multiple sets of apparatus permit laboratory experiments to be run nearly paralled to the lectures and recitations, thus strengthening the instruction on both sides. The department has a complete photographic outfit with the necessary dark rooms, fully equipped for developing and printing; a wireless receiving station; and a very complete X-Ray equipment.

PLANT DISEASES.

See Botany and Forestry.

POLITICAL ECONOMY.

See History and Civics.

PSYCHOLOGY.

See Philosophy and Sociology.

PHYSICAL EDUCATION.

Professor CHADWICK.
Mr. HAYES.

The work of the Department of Physical Education includes the direction of all inter-collegiate and intra-collegiate athletics, instruction in in-door and out-door athletic sports, gymnastics, and lectures on personal hygiene. It is the aim of the department to induce every student to take up systematically some form of exercise in the effort to attain a better physical development and secure recreation. On account of the favorable climatic conditions stress is laid upon the development of the out-door athletic sports and games. Instruction is provided for the various groups, and after a reasonable period of training teams are organized, and a series of class and department games is played.

By a regulation of the faculty all first year students are required to complete in a satisfactorily manner one year's work in the Department of Physical Education. Such students will be given an examination and where weaknesses or abnormalities are discovered suitable corrective exercises will be prescribed. Students suffering from organic diseases will be excused from such exercises as might prove injurious and required to secure proper medical advise and treatment. Those whose physical condition is satisfactory may select with the approval of the Director any one of the following courses:

1. **Physical Training.**—(a) Gymnastics. Calisthenic drills and exercises. Apparatus work. (b) Football. Study of rules. Practice. (c) Basketball. Study of rules. Practice. (d) Track and Field Athletics. Theory and practice of events. *Two hours. Fall term. Required of Freshmen.*
2. **Physical Training.**—(a) Gymnastics. Apparatus work; boxing; wrestling; recreative games. (b) Basketball. Continuation of work of first term. Inter-class games. (c) Cross country running. Talks on training. Practice. (d) Soccer football. Study of rules. Practice. *Two hours. Winter term. Required of Freshmen.*
3. **Physical Training.**—(a) Gymnastics. Apparatus work. Drills. Exhibition. (b) Track and Field Athletics. Theory and practice of events. Field meets. (c) Baseball. Study of rules; practice; inter-class games. (d) Tennis. Study of rules; practice; tournament. *Two hours. Spring term. Required of Freshmen.*

4, 5, 6. **Physical Training.**—Advanced work in any of the subjects listed

under Physical Training 1, 2, 3, will be given to any students who are prepared to take the work. Special classes will be arranged for any students desiring to take up other work if facilities are available. *Three hours. Elective. Open to all students.*

7. **Athletic Coaching.**—This course is intended for those students who except to take charge of athletic work in the High Schools. A theoretical study will be made of the major out-door sports,—football, baseball, basketball, and field and track athletics; methods of training and coaching; athletic management; the design, construction and maintenance of athletic fields; the organization and management of a field and track meet. The course will consist of lectures, assigned reading, reports, and as much practical work as possible. *Four hours. Spring term. Elective. Open to any students prepared to take the work.*

POULTRY HUSBANDRY.

Professor CLAYTON.

The purpose of this department is two-fold in that it is instructional and experimental. The courses outlined and offered to students are such as will materially help them in the care and management of this branch of live-stock on the farms and help to detect and ward off the common diseases that so often hinder progress in this line of farming. Instruction consists in lectures and text-books supplemented by practical work in incubation, brooding, construction of labor and money-saving poultry appliances, and planning houses and yards for Mississippi conditions. Various experiments are conducted each year, and all students in this department are required to familiarize themselves with these experiments and results obtained from them.

1. **Poultry Keeping.**—This course is a lecture course, supplemented by text-book on Domestic Birds, which treats of the various kinds of poultry and ornamental birds together with a brief treatise on management of chickens, ducks, geese, and turkeys, with a chapter on marketing. *One term, two hours per week. Required of all Agricultural Freshmen.*
2. **Poultry Culture.**—This course takes up more fully all the phases of poultry husbandry mentioned above and in addition origin and description of breeds, varieties, subvarieties, and strains, methods of mating to obtain best results, trap-nesting, record-keeping, caponizing, and judging with special stress on judging the laying hen. *Three hours per week theoretical and two hours laboratory. Required of all Agricultural Juniors, third term.*
3. **Poultry Management.**—This course is outlined for the two-year men and consists of lectures and text books and practical demonstrations.

It combines briefly the main features of courses 1 and 2. *Three hours per week theoretical and two hours practical.*

4. **Egg Farming.**—A special study of the methods used on commercial egg farms together with a study of feeds, compounding and mixing balanced rations, practice of feeding, housing, with special stress on the colony system of farm poultry, building both houses and brooders for practical use. Students in this course are required also to make a special study of markets and marketing. *Three hours per week theoretical and two hours practical, with research work as required. Elective for Agricultural Seniors. Two terms, second and third. Prerequisite, Poultry 2.*

EQUIPMENT.

The department is equipped with a brooder house 16x110 ft., several colony houses, ten double breeding houses, and coops of various sizes. It has several makes of incubators and brooders, an incubator cellar, work house, feed house, and a house for storing straw. It has several varieties of chickens, ducks, geese, turkeys, and pea-fowls.

PUBLIC DISCOURSE.

Professor MELLEN.

Without means of dissemination scientific facts are practically valueless. Only public writing and business speaking can carry information to the people.

Applied composition, oral and written, and vocational literature are therefore the distinctive subjects of the Department of Public Discourse. The immediate object of the department is to train students in the interpretation and in the expression of ideas from the rostrum and through the press.

With the help of business and scientific courses, as offered by the several Schools, the courses in Public Discourse will make the student a leader in his home community and in the state at large. The course entitled **Business Correspondence and Conversation,** founded on the student's previous study of psychology, teaches the student to write and talk "to win." Similarly, the other courses in the department, though minimizing in no degree the importance of cultural instruction, lay stress on the practical studies, which serve the student in life: agriculture, business, education, engineering, chemistry, and the like; in consequence they train the student to disseminate

scientific information and to gain business ends. By means of the training in practical expression, the student, even while an undergraduate, will take vocational knowledge straight from the class-room or the field to his home community.

The students in the Department of Public Discourse have excellent opportunities for practice work. They may contribute items to **The College Reflector, The Agricultural Student,** and other college publications and occasionally to scientific bulletins and industrial papers. The students who are developing their powers of speech, who wish to become county demonstrators, high school principals, and business heads take part in the **literary societies,** and the vocational clubs; they enter local and inter-collegiate speaking contests; and occasionally, under direction of the Department, speak to high school audiences on libraries, diversified farming, the home garden, good roads, transportation, or other practical subject.

To make the student an immediate agent of public service is the ideal.

4, 5, 6. Societies—A general course in vocational writing and public speaking. Adapted to the needs of those students who devote much time to literary societies, vocational clubs, and student publications. *Number of credit hours depends on the amount of work done; first, second, and third terms. Open to all college students.*

8. Business Correspondence and Conversation.—A study in the technique of business conversation and letter-writing. Methods of producing the desired effect; applications, orders, acknowledgements. *Five credit hours, first term. Required of all Business Administration Sophomores.*

9. Agricultural Writing.—The topics are drawn from the agricultural courses studied this term: Botany 18, Bacteriology 3, Agronomy 4, Agricultural Engineering 7, Chemistry 6, Veterinary Medicine 10, Entomology 8, Horticulture 38. The writing of newspaper articles, bulletins, and articles of other kinds. *Three credit hours, third term. Elective for Agricultural Seniors.*

11. Interpretative Reading.—To train students to read effectively. Selections are drawn primarily from agricultural and business publications. *Elective for underclassmen and for teachers.*

14. Debate.—This course, an extension of 24 into a definite field, presupposes a fair amount of information, reasoning ability, and linguistic skill. Primarily for the students who will take active part in town meetings, organizations for local enterprise, stockholders' meetings, etc. Adapted, also, to needs of the higher classmen who take part in inter-

collegiate and local debates. *Three credit hours, second term. Required of all Seniors in Public Affairs.*

15. **Persuasion.**—To assist the industrial leader ot persuade his audience by means of solid thought expressed sincerely. Incidentally, to enable students to compete advantageously in oratorical contests. The fine points of style are discussed. An advanced course; those expecting to do the work are urged to study, as preparatory courses, 32, 17 or 19 24, and 14. *Three credit hours, third term. Required of all Seniors in Public Affairs.*

17. **Agricultural Speaking.**—A course for students of the Agricultural School, especially those who expect to be County Demonstrators, Institute Conductors, or leaders in the Home Community. Practice in organizing the farmers' meeting. Agricultural topics. The moral, intellectual, and physical basis of good speaking. *Three credit hours second term. Elective especially for Agricultural Seniors.*

19. **The Public Meeting.**—The organization of the Public Meeting. Nominations, installations. Each student serves once or twice as chairman Questions relating to business, public service, education, and science Committee assignments. Discussions, oral and written. Lectures on arrangement and choice of words. Pausing, articulation, etc. *Four credit hours, third term. Required of all Industrial Education and Business Administration Juniors.*

20. **Public Service.**—Studies in current economic, business, and educational publications such as System, Manufacturers Record, Hoard's Dairyman, The North American, The Literary Digest, the Times Picayune, and the best Mississippi papers. The writing of papers suitable for publication. *Four credit hours, second term. Required of all Juniors in the Divisions of Business and Industrial Education.*

21-22-23. **Public Writing.**—Practical courses for those students who will be reporters, editors, and publishers. News gathering, copy writing proof reading; editing; policy of the newspaper; circulation, advertising, etc. Theory and some practice. *Three hours, each term. Required of all Seniors in Public Affairs.*

24. **The Public Lecture.**—To train students to deliver popular addresses on questions of public and business interest. Study of the probable audience and of the occasion. Required readings. Structure and phraseology. Exercises in voice, gesture, and graphic illustration. Each student is required to deliver at least one address to a public audience. *Three hours a week, first term. Required of all Seniors in Business Administration and Public Affairs.*

30. **Civil Service Composition.**—This course, adapted to the needs of those students who intend entering the civil service (including the Army, the Navy, the Forestry Department, etc.), embraces report writing, letter writing, copying, and correcting of manuscripts and incidentally exercises in spelling and penmanship. Subjects for themes are drawn from the industrial courses studied this term. *Three hours a week, any term. Elective for Seniors and others qualified.*

31. **Advertising.**—A continuation of 8. Circulars, follow-up letters, form letters; display, value of white space; where to advertise; preparation of copy; ethics of advertising. *Five hours a week, second term. Required of all Sophomores in Business Administration.*

32. **Abstracting and Filing.**—Abstracts and briefs will be made of articles found in such current magazines as The Literary Digest, Merchants Trade Journal, Forum, and Teachers Journal. The several systerms of filing will be discussed; and the student will file letters and papers according to the several methods. *Four hours a week, first term. Required of all Industrial Education and Business Administration Juniors.*

33, 34, 35. **Language, the Tool.**—Three related courses, distinctively practical, outlined for the life-needs of the students taking The Two-Year Short Course in Agriculture. Exercises in simple letter writing and oral reading, including essentials of punctuation; further practice, in various letter-forms—introductions, applications, orders, announcements, business-getting letters, dunning letters; business forms, written and oral reports distinctively vocational. *Three hours a week, first, second, and third terms. Required of all first year students in the Two-Year Short Course.*

RURAL ENGINEERING.

See Agricultural Engineering.

SOIL PHYSICS.

See Agronomy.

SPANISH.

See Modern Languages.

STENOGRAPHY.

See Business Administration.

SURVEYING.

See Civil Engineering, and Drawing, and Rural Engineering.

TYPEWRITING.

See Business Administration.

VETERINARY MEDICINE.

E. M. RANCK.

This course is designed as an adjunct to the agricultural department of the college. Its aim is to instruct students in

the care and management of live stock, with particular reference to the examination of animals for soundness, characteristic lameness of different farm animals, horse shoeing in a theoretical manner, elementary comparative anatomy, physiology, pathology, and therapeutics of such practical nature as can be applied on the southern farm.

It is further intended to teach students the practical application of quarantine and preventative measures in stamping out such diseases as tick fever, charbon (anthrax), blackleg (symptomatic anthrax), glanders, tuberculosis, and other diseases that handicap the raising of live stock. They are given instruction in the use of anti-hog-cholera serum, and taught the adopted method of preventative treatment.

They are instructed in the various methods of detecting the common troubles attending the breeding and raising of live stock, including an elective course in embryology and obstetrics, in order to assist them in following this branch of work.

The students of this department are in constant contact with the reports of infectious diseases of animals over the state, for the professor of this branch is also state veterinarian and directs the work of the State Live Stock Sanitary Board along these lines.

The equipment of this department consists of a first-class veterinary hospital, in which a number of box stalls are provided for the care and nursing of animals that are sick or suffering from surgical diseases. Means are also provided for taking care of all sick animals connected with the college and experiment station; and a supply of drugs is always kept on hand to be used in treating these animals, whenever occasions arise to do so. The latest surgical appliances and instruments are kept on hand, in order to teach the students of this department the methods used in the latest surgical technique. They are also instructed in the handling and restraint of live stock in health and in disease.

It is not our object to turn out professional veterinarians, as it would be impractical with the time, equipment, and teaching force allotted to this department. Students desiring to study veterinary medicine as a profession should graduate from our agricultural college, and then graduate from a regularly

recognized veterinary college if they can spare the time and means. Graduates from this school are admitted to advanced standing in veterinary colleges according to the curriculum of the several schools teaching this branch.

8. **Veterinary Anatomy and Physiology and Examination for Soundness.**—*Four hours per week lecture room, and two hours per week clinic. First term. For Agricultural Juniors.*
9. **Materia Medica and Therapeutics.**—*Five hours per week lecture room, and two hours per week clinics. Second term. For Agricultuarl Seniors. Elective.*
10. **Theory and Practice and Surgical Clinics.**—*Five hours per week lecture room. Four hours per week surgical clinics; including hog cholera innoculation, and obstetrics. Third term. Agricultural Seniors. Elective.*
11. **Veterinary Embryology and Obstetrics.**—*Three hours per week lecture room. One or two hours per week practical work at clinics. Second or third term. For Agricultural Seniors. Elective.*
12. **Elementary Anatomy and Physiology and Examination for Soundness.**—*Three hours per week lecture room, and two hours per week clinics. For second term. First Year Agricultural students taking the Two-Year Course.*
13. **Elementary Course in Animal Diseases.**—*Three hours per week lecture room and two hours per week clinics. Third term. For Agricultural Freshmen.*
14. **Summer Term Course.**—Examination for soundness, detection of lameness, principles of shoeing for lameness, methods of handling animals, methods of giving medicines, sanitation, etc. *Three hours per week lecture room and two hours practical.*
15. **Summer Term Course.**—Discussion of common diseases of animals in Mississippi, including tick-fever, anthrax (charbon), blackleg, glanders, tuberculosis, hog cholera, pink eye, forage poisoning, rabies, insect pests; also surgical diseases and emergency remedies that can be used on the farm; also demonstration of the methods of vaccinating against the several diseases. *Three hours per week lecture room, and two hours practical.*
16. **Summer Term Course.**—Advanced course of Veterinary Medicine and Surgery, intended for registered veterinarians of Mississippi who wish to take advantage of our teaching facilities and large clinics. *Six hours per week lecture room and two hours clinics, for six weeks.* Arrangements can be made to do some Veterinary Bacteriology, Veterinary Zoology, Poisonous plant work in the Botanical Department; and if the applicant has had sufficient training in Chemistry, he can get a course in chemical analysis of tissues and organs to detect the presence of poisons.

WOODWORK.

See Mechanical Engineering.

ZOOLOGY AND ENTOMOLOGY.

Professor HARNED.
*Mr. LOBDELL.
Mr. WILSON.
Mr. BIBBY.
Mr. ARNOLD.

8. **Special Entomology.**—In this course the work is arranged to suit the needs and attainments of each individual student. Special lectures may be given and assigned readings will constitute a considerable part of the work, but this is supposed to be primarily a laboratory and field course. Any phase of entomological work may be taken up at this time. The insectary may be used for the life history work and the photograph gallery and department library are at the disposal of students prepared to use them. Both oral and written discussions of the work undertaken will be required from time to time. Hours and credits to be arranged individually. A student may elect any amount of time he desires in this course if it is acceptable to the head of the department. Laboratories are open daily from 8:00 a. m. to 5:30 p. m. Credit may be obtained for work done here during the summer. *Three terms. This course is designed particularly for Agricultural Seniors and General Science Juniors electing entomology, but is open to all students desiring to take special work in this department to prepare themselves for entomological work or teaching.*

Professor HARNED.

9. **Graduate Work.**—Graduates of this or other colleges may take up any line of investigation or research work in this department. Candidates for the Master's degree may take either the major or minor work. The work is arranged as in course 8. Laboratories open from 8:00 a. m. to 5:30 p. m. *Three terms and during summer.*

Professor HARNED and Mr. WILSON.

13. **Apiculture.**—This course is designed to give the student a general knowledge of the anatomy and natural history of the honey bee as well as a practical knowledge of apiary methods, honey production, and related topics. Lectures, recitations, library, laboratory, and field work. *Five course hours, third term. Open to all students as an elective.*

Professor HARNED.

15. **General Zoology.**—A general course covering all the branches of animals. The student becomes acquainted with the more important economic species of each branch. It is designed to give a general introduction to Zoology. Special attention is given to animals of economic importance. Text-book: Daugherty's Principles of Economic Zoology. *Four hours a week recitation, and two hours a week in the laboratory. Required of all Agricultural and General Science Sophomores. Open to all students.* Mr. WILSON and Mr. ARNOLD.

18. **General Entomology.**—This is a general course dealing principally with the characteristics of the different orders, sub-orders and important families of insects and with the habits and life histories of representa-

tive important economic species. About equal attention is given to the morphologic, systematic, and economic side of the work. Text-book: Comstock's Manual for the Study of Insects. *Two hours a week recitation and four hours a week in the laboratory. Required of Agricultural Juniors and General Science Sophomores; offered to all students prepared to take the work.*

Professor HARNED, Mr. WILSON, and Mr. ARNOLD.

19. **General Entomology.**—A continuation of course 18 *Two hours a week recitation and four hours in the laboratory and field. Required of Agricultural Juniors and General Science Sophomores.*

Professor HARNED, Mr. WILSON, and Mr. ARNOLD.

20. **General Entomology.**—A continuation of courses 18 and 19, but during this term the work is entirely with insects of economic importance. Illustrated lectures will be given and bulletins on insect pests will be used. Each student will be required to make a satisfactory collection of economic insects. *Two hours a week recitation and four hours in the laboratory and field. Required of Agricultural Seniors. Offered to all students who have completed courses* 18 *and* 19.

Professor HARNED and Mr. ARNOLD.

21a. **Economic Entomology.**—In this course the life histories, habits, and methods of controlling the principal insect pests of field, garden and orchard crops are studied. *Five hours a week for one term. This course is designed particularly for Agricultural Seniors specializing in the Agronomy and Horticultural departments but is open to all students prepared to take the work.*

Professor HARNED and Mr. ARNOLD.

21b. **EconomicEntomology.**—A continuation of course 21a. *Five hours a week for one term.* Professor HARNED and Mr. ARNOLD.

22. **Advanced General Entomology.**—Special attention is given to the structures of insects and their functions and to the biological aspects of entomology. *Prerequisites, courses,* 15, 18, 19, *and* 20, *or their equivalent. Five hours, winter term.* Professor HARNED.

23. **Invertebrate Zoology.**—A general course dealing with the morphology, reproduction, physiology, classification, habits, life history, geographical distribution, and economic importance of invertebrate forms. *Prerequisites, course* 15, *or equivalent. Seven hours for one term.* Mr. WILSON.

24. **Vertebrate Zoology.**—A general course similar to that described in course 23, but dealing with vertebrate forms. *Prerequisites, courses* 15 *and* 23 *or equivalents. Seven hours.*

25. **General Zoology.**—A general course covering all the branches of animals. The student becomes acquainted with the more important economic species of each branch. It is designed to give a general introduction to Zoology. Text-book: Daugherty's Principles of Economic Zoology. For the satisfactory completion of this course college credit will be given for course 15 of the general catalogue required of Sophomore Agricultural and General Science students. *Six recitations*

or lectures, twelve hours of laboratory or field work, and one written quiz will be required each week.

SUMMER SESSION. Credit five hours.

27. **Household Insects.**—A brief study of such insects as the housefly, mosquitoes, bedbugs, cockroaches, fleas, ants, clothesmoths, human parasites, and poisonous insects with remedies and methods of control. *One hour each day during the summer. This course is designed especially for teachers of domestic science but is open to all. Offered only in summer.*

SUMMER SESSION. Credit: two hours.

28. **Embryology.**—Study of the early stages of the chick. This course will emphasize the development of the germ layers, the early stages in the development of the organs of the body, the fetal membranes and attachment of embryos. Special attention will be given to methods of preparing embryos and slides. *Course open to Seniors only.* Text; Lilly "Embryology of the Chick." *Five course hours, spring term.*

29. **Medical Entomology.**—An elementary introductory course in regard to insects and their relation to diseases of man and domestic animals. Text-book, lectures, laboratory, and assigned readings. *Elective. Five course hours. Spring term.*

30. **Elementary Economic Entomology.**—This course is designed to make the students in the two years' course in Agriculture acquainted with the more common injurious and beneficial insects found on Mississippi farms. Special attention is given to control measures of injurious insects. *Four hours a week class-room and four hours in the field and laboratory.*

*On leave of absence.

WORKING BOYS' COURSE.

Industrial Course B, commonly called the "Working Boys' Course," is intended to provide a way for worthy young men to come to college and pay all their expenses by their labor. The members of this couse do ordinary farm work during the day, for which they are paid wages ranging from $20 to $25 per month and attend classes at night. They are thus able to pay all their expenses and at the same time, to make considerable progress in their studies. Some members of the "Working Boys' Course" each year have saved enough money to enter regularly the following year, and while so doing have prepared themselves to meet the entrance requirements for the freshman class. Members of this course room in the dormitory, have their meals in the mess hall, and are subject to the college discipline, as are other students.

Working boys are not longer allowed to draw their accumulated earnings on leaving the College. These working boy's positions are made for the purpose of giving the boy an opportunity to get an education. He is allowed his board and such necessary clothing as he has to have, and all in excess of that amount will be kept in the Secretary's office to apply on his support when he enters college as a regular student, and should he leave without becoming a regular student, he will not be permitted to carry away the surplus earned while working as a student. This policy has been adopted because it has been the custom for many young men to come here to get work for a month or two without any thought of going to school.

To enter this course one must be not less than eighteen years old, and able and willing to do ordinary manual labor, and must present a certificate of good character signed by two reputable citizens of his home community. Applicants are cautioned not to come to the college expecting to enter the "Working Boys' Course" without first obtaining assurance from the president of the college that they will be admitted.

For further particulars of the subjects taught, see "Industrial Course B," under the School of Industrial Education, page——.

DIVISION OF COLLEGE EXTENSION.

STAFF OF EXTENSION WORKERS.

EDWARD READ LLOYD, M. Sc., Director.
†ROBERT SAMUEL WILSON, B. Sc., State Agent, Farmer's Co-operative Demonstration Work.
†CULLY ALTON COBB, B. Sc., Assistant State Agent in Charge of Boys' Clubs.
†PAUL H. SANDERS, Assistant in Charge of Pig Clubs.
†JOHN WILLIAM WILLIS, B. Sc., District Agent.
†PETER PARLEY GARNER, A. B., M. Sc., District Agent.
*BRADNER J. MOORE, District Agent.
†E. C. McINNIS, B. Sc., District Agent.
RICHARD HARRISON PATE, Superintendent Farmers' Institutes.
THOMAS ALVA EARLY, Rural School Specialist.
T. J. BROOKS, Markets and Rural Economics.
JOHN FRANKLIN McKAY, B. Sc., Market Specialist.
IRA W. CARPENTER, B. Sc., Specialist in Animal Husbandry.
†FRANK W. FARLEY, B. S., Specialist in Animal Husbandry.
ALEXANDER BEAUREGARD McKAY, M. Sc., Horticulturist.
*EVERETT FLOYD WHITE, M. Sc., Specialist in Horticulture.
DANIELS SCOATES, B. S., Agricultural Engineer.
JOHN W. CARPENTER, Jr., B. S. A., Agricultural Engineer.
HENRY OSCAR PATE, A. B., M. Sc., Specialist in Farm Management.
THOMAS MILTON PATTERSON, M. Sc., Specialist in Community Organization.
†LYDA ALEXANDER HIGGINS, B. S. A., Agent in Dairying.
†JOSEPH L. PAUL LA MASTER, B. S. A., Assistant in Dairying.
†OSMAN M. CAMBURN, B. S., Scientific Assistant in Dairying.
†MISS SUSIE V. POWELL, State Agent, Home Economics Extension Work.
MISS CONNIE J. BONSLAGEL, A. B., Assistant State Agent Home Economics Extension Work.
MISS LULA TUNISON, A. B., Specialist in Poultry.
MISS MAUDE B. REEVES, B. S., Specialist in Home Economics.
MISS RUTH BURNSIDE, Stenographer.
†MISS EDNA EARL WADDELL, Stenographer.
†W. T. MAY, Stenographer.
†C. P. SELZER, Stenographer.

*Resigned.
†In co-operation with U. S. Department of Agriculture.

Since the Agricultural and Mechanical College was opened to students, October 6, 1880, extension work in some form has been an important feature of its service. In the first report of the College to the Legislature, President S. D. Lee says:

"The demands made on the different professors of the College for information in their respective lines by our farmers is a most encouraging feature and is steadily increasing." This work continued to grow and in 1910 the scope was broadened and the Department of Farmers' Institutes and Extension was established. In 1914 the Smith-Lever Act was passed by Congress and was approved by the President of the United States on May 8, 1914. The College readily took advantage of the offer of the Federal Government to broaden the extension work under the provisions of the Smith-Lever Act. President G. R. Hightower and the Board of Trustees approved the Act and secured the assent of the Governor of the State on May 27, 1914 The men's and the women's demonstration work in co-operation with the U. S. Department of Agriculture was coordinated with the Extension Department of the College on July 1, 1915.

EXTENSION AND DEMONSTRATION WORK THROUGH COUNTY AGENTS.

The county agents, who are directed by the state agent and his assistants, give instruction to farmers on better methods of agriculture, including farm practices and management, raising of crops, production of live stock, standardization of production, community organization, etc., and carry out demonstrations illustrating the same.

BOYS' CLUB WORK.

The assistant state agent and his assistant have charge of this work. Clubs are organized among the boys of the State for the production of corn and other crops, and the raising of live stock. The object of this work is to teach better methods of agriculture to farm boys in Mississippi, to inspire them with a love of the land, and to stimulate friendly rivaltry among them.

COMMUNITY ORGANIZATION.

This work is carried on by a specialist who gives instruction to farmers in methods of community organization and assists county agents in perfecting community organizations in their counties.

FARM MANAGEMENT.

The specialist in charge of this work instructs farmers and their families regarding methods of farm management and accounting. A farm survey is being made of several counties of the State.

MOVABLE SCHOOLS.

The men and women in the extension department conduct these schools in communities where there is located a live agricultural high school and in sections thickly settled with small farmers. Practical help is given in solving the many problems of the farm and home.

EXTENSION WORK IN DAIRYING.

The three men engaged in this work give personal advice and instructions to farmers concerning methods of feeding, management of dairy cattle, raising of calves, and erection of silos and dairy buildings. They attend meetings of farmers for the purpose of discussing with them the various local and general problems of the dairy business. Herd records are introduced and assistance is given in the selection of pure-bred bulls and high-grade cows. Aid is given the county demonstration agents with reference to their dairy problems.

CO-OPERATIVE MARKET CLUB WORK.

This work is carried on by a specialist who organizes marketing and trucking clubs; gives advice as to the products in demand and where the demand exists; and gives demonstrations in curing and storing products on the farm when markets are low or overstocked at harvest time.

AGRICULTURAL ENGINEERING.

The men in charge of this work encourage the building of better farm buildings, the installing of drainage systems, both open ditch and tile drains, and the building of terraces. They furnish the farmers, free of charge, blue prints of any farm buildings they desire to build; assist them in planning their farm building arrangements and tile drainage systems; and give instructions in building silos and farm buildings, in laying tile, and in constructing terraces.

ANIMAL HUSBANDRY.

The two men in charge of this work encourage the breeding of more and better live stock and instruct farmers in feeding live stock and utilizing their feed more profitably. They assist farmers who are inexperienced in the selection, breeding, and feeding of farm stock and encourage the co-operative buying and using of pure-bred sires and the co-operative marketing of stock when necessary. They also encourage the keeping of accurate records of work done at each farm under their instructions.

HORTICULTURAL EXTENSION WORK.

The aim of this work is to encourage the planting and proper care of home orchards and gardens and to create a healthy sentiment for school garden work. The specialist in charge assists inexperienced parties in selecting the kinds of fruit and vegetables and the best varieties of each kind; instructs them as to the best methods of orchard and garden treatment in different latitudes and on different soil formations in Mississippi; and demonstrates on as many school gardens as time and facilities will permit the possibilities and value of school garden work.

SCHOOL EXTENSION IN AGRICULTURAL TEACHING AND DEMONSTRATIONS.

The object of this work is to bring the agricultural work of the agricultural high schools and the rural schools in more direct touch with the farmer by practical demonstrations. The specialist in charge assists the farmer through the agricultural high schools, consolidated rural schools, and other high schools, and conducts practical demonstrations in field and garden crops on school farms and grounds for the benefit of the farmers of the county or neighborhood. He encourages the keeping of accurate records of the work done at each farm under his direction.

FARMERS' INSTITUTE.

Farmers' Institutes are held throughout the State. Live stock, forage crops, legumes, soil fertility, tiling, terracing diversification, seed selection, silos, cultivation of crops, etc., are

themes for these institutes. The Superintendent of Farmer's Institutes delivers lectures frequently at the agricultural high schools and other schools in the State.

HOME ECONOMICS EXTENSION WORK.

This work is carried on by county agents who give instructions to farm women and girls in home economics, domestic arts, and allied subjects by conducting demonstrations and organizing clubs for rural improvement, demonstrations in home economics, canning clubs, poultry clubs, etc. These agents are under the direction of the State agent and her assistants. One of the assistants in this work devotes her entire time to organizing poultry clubs among the girls and egg selling associations among the women of the State.

BUREAU OF INFORMATION.

For more than a quarter of a century well equipped scientists of the Federal and State Institutions have devoted much time and thought to searching out methods for the improvements of farming, and increasing the agricultural wealth of Mississippi. Experiments, some of which have lasted over periods of several years, have been conducted to determine the best practices in almost every line of agriculture. A vast amount of valuable information has been collected; enough, if it were commonly put into practice, to increase the state's production to great proportions.

One of the greatest problems in connection with this work has been getting the information into the hands of the farmers who need it. While much has been accomplished by publishing and distributing free bulletins to the farmers, still the information is not as widely disseminated as the welfare of the State demands.

These great funds of agricultural information dealing with farming in our state are filed away in libraries and experiment station records. In addition the scientists employed in the Agricultural and Mechanical College, and Experiment Station are continually finding new helps to farming. To unlock these store-houses of information to the farmers, the College in connection with Extension Division has established a Bureau of

Information for the purpose of getting this material into short, practical, readable form and sending it out to the newspapers and agricultural papers that circulate in the state. Each week timely articles all bearing strictly on Mississippi and her progress are sent to papers most of which gladly publish the information for the benefit of their readers and to improve farming in their communities.

This Bureau of Information also aids in the preparation of short bulletins, in popular, non-technical languages on the various phases of agriculture, which are sent out by the Extension Division of the College. In addition to this work it sends out advance notices of agricultural meetings to be held, and endeavors to keep the people of Mississippi posted concerning the work of the Agricultural College and of the agricultural workers in all sections of the state.

EXPERIMENT STATIONS.

EXPERIMENT STATION STAFF.

EDWARD READ LLOYD, M. Sc., Director.
JAMES ROBERT RICKS, M. Sc., Agronomist and Vice-Director.
WILLIAM FLOWERS HAND, M. Sc., Ph. D., Chemist.
WILLIAM NEWTON LOGAN, A. M., Ph. D., Geologist.
JOSEPH S. MOORE, M. Sc., Dairy Husbandman.
ROBEY WENTWORTH HARNED, B. S. A., Entomologist.
HARRY BATES BROWN, Ph. D., Plant Breeder.
EDWARD MARTIN RANCK, V. M. D., Veterinarian.
CHARLES FRANCIS BRISCOE, A. M., Ph. D., Bacteriologist.
EDGAR POMEROY CLAYTON, Poultry Husbandman.
JOHN MANN BEAL, M. Sc., Botanist.
HUBBARD KAVAANAUGH GAYLE, B. S. A., Animal Husbandman.
*RICHARD NUGENT LOBDELL, M. Sc., Assistant Entomologist.
CHARLES EARL WILSON, M. A., Assistant Entomologist.
HORACE HAMMERTON HARNED, B. S. A., Assistant Bacteriologist.
†SIDNEY SIBLEY JERDAN, B. S., Junior Animal Husbandman.
†NEWTON FELIX HANSON, B. S. A., Assistant in Animal Husbandry.

*On leave of absence.
†In co-operation with U. S. Department of Agriculture.

Four experiment stations are established in Mississippi for conducting investigations in agriculture. These are the Central Station at the A. and M. College, the McNeill Branch

Station at McNeill, the Holly Springs Branch Station at Holly Springs, and the Delta Branch station at Stoneville. Located as they are, these stations furnish facilities for conducting experiments ,the results of which are directly applicable to the various soils and climatic conditions that obtain in the State. The results obtained by the stations are published in bulletins and circulars, which are sent free of cost to residents of Mississippi on request.

Mule Breeding.—The size, type, and quality of mules from different breeds of mares, sired by the same jacks, are being studied. The colts are weighed, measured, and photographed at regular intervals and data recorded. As a rule draft mares produce the largest and most valuable colts. Feed is one of the most important factors in securing size. The influence on progeny from feeding rations rich in protein and balanced rations is being noted.

Breeding and Raising Grade Beef Cattle.—Experiments are being conducted to determine the relative value of bulls of the different beef breeds of beef cattle for Mississippi conditions and for improving the native cattle of the State. Apparently there is little difference in the calves from the different bulls. The first-cross calves sell locally for from 50 to 75 per cent. more than is paid for native or scrub calves of the same age.

Feeding tests are being made to find out the kind and amount of feeds best suited for fattening beef cattle. Silage and cotton seed meal constitute our most economical ration.

Feeding Cotton Seed Products to Dairy Cattle.—The effect of the continuous feeding of cotton seed products to dairy cows is being studied, and it has been found that cows receiving continuous heavy feeding of cotton seed meal do not breed regularly; the calves in some cases are very small and weak at birth; and the udders of many of the cows are inflamed. Large quantities of cotton seed hulls have also been fed continuously, and the above troubles were not so marked but were more frequent than with cattle on normal feed.

Hog Feeding and Grazing.—The cost of producing pork from grazing crops with and without supplementary feed is being determined. For producing pork economically the fol-

lowing grazing crops are among the best for this section; for winter grazing, rape and red clover, oats and vetch, crimson and bur clover; for spring and summer, alfalfa, red clover, cowpeas, soy beans, peanuts, and sweet potatoes.

Hog Cholera.—Different methods by which hog cholera may be transmitted are being studied. Three tests have been made with sparrows, cow birds, and pigeons, and in each case the check died with cholera. Two tests were made with lice and in one case the check died with cholera and in the other the check didn't contract the disease. Two tests were made with air and there were no deaths in the check lots.

Poultry Feeding.—Cotton seed meal has been fed continuously to poultry in medium and large quantities in comparison with beef scraps, cotton seed meal proving to be the cheaper of the two. The birds receiving cotton seed meal moulted earlier and began laying earlier in the fall than those getting beef scrap. There seemed to be no apparent difference in the health and vitality of the birds.

Soil Fertility.—Several forms of lime have been tested under various crops, and there was little difference in the results from the use of lime of different kinds. On certain soils and under certain crops the lime was beneficial. One of the best rotations for this section to increase fertility is as follows: first year, oats followed by cowpeas; second year, cotton; third year, corn "laid by" in cowpeas.

Forage Crop Investigations.—New grasses and forage crops for hay and pasture purposes are being tested. Sudan grass, Rhodes grass, and Guinea grass have been found to be adapted to Mississippi conditions.

Cotton Breeding.—Heredity and development in the cotton plant are being studied, and improved varieties are being bred. Several promising strains of long staple and bender cottons have been developed and are being tested further in order to eliminate all but the most profitable. Commercial field plantings have been made of three of these strains in the Delta. Several new strains of short staple cotton are also being tested. As a result of the variety tests, several new and promising varieties have been introduced into the State and are coming into extensive use.

Green Manure Investigations.—Experiments are being made to determine the effect of micro-organisms in the fermentative destruction of a green manure and the advantage of adding a light dressing of stable manure, or a bacterial culture, or both in hastening this fermentation.

Crawfish Investigations.—Seven species of craw-fish have been found in the state. The life habits of the most injurious species, Cambarus hagenianus, have been studied considerably. Many substances have been used experimentally to poison these creatures.

Scale Insects.—The distribution, food plants, and economic importance of the scale insects that occur in this state are being determined.

Insects Injurious to Pecans.—The species of insects found on these plants are being determined, and their life histories, habits, and control measures are being studied.

Tomato and Potato Diseases.—Methods of control of tomato and potato diseases in the state are being considered. A preliminary host index of the economic funguous diseases occurring in Mississippi has been prepared.

Nursery Inspection.—Nursery inspection is done to keep the nurseries of the State free of seriously injurious pests and plant diseases and to protect the buyers of nursery stock against diseased plants. The introduction and spread of injurious insect pests and plant diseases have been prevented to a large extent.

Forage Poisoning.—The object of this work is to study the sources of forage poisoning—plants and feeds; to separate and identify the toxic bodies in poisonous or harmful plants and products; to investigate the effects of these on domestic animals, and to study methods of treatment. The first plant taken up was Paspalum, which causes the death of many cattle in Mississippi each year. If a mower, set so as to clip off the "Paspalum" heads is run over the pasture about once a month during August, September, and October, the poisoning will be prevented. A bulletin has been published giving results of experiments with Claviceps Paspali on Paspalum.

MILITARY ORGANIZATION.

G. R. Hightower, President, Head of the Military Department.
Colonel Louis Farrell, First Lieutenant, Unassigned, U. S. Army, Commandant.
Ordinance Sergeant Edward Lucke, U. S. Army Retired, Assistant Commandant.

REGIMENTAL FIELD STAFF AND NON-COMMISSIONED STAFF.

John M. Moose.....Cadet Lieutenant Colonel.
M. E. Smith.....Captain and Regimental Adjutant.
E. L. Hobby.....Cadet Captain and Quartermaster.
G. W. Smith.....Cadet Captain and Ordnance Officer.
R. H. McInturff.....Cadet Captain and Commissary.
C. E. Brashier.....Cadet Regimental Sergeant Major.
W. H. Hollingsworth.....Cadet Ordnance Sergeant.
J. W. Newton.....Cadet Color Sergeant.
T. W. Patten.....Cadet Color Sergeant.

BAND, DRUM AND BUGLE CORPS.

Mr. Carl Leake.....Director of the Band.
F. H. Willemain.....Cadet Captain.
L. W. Anderson.....Cadet First Lieutenant.
J. E. Scherer.....Cadet Second Lieutenant.
N. P. Evans.....Cadet Drum Major.
I. H. Walton.....Cadet First Sergeant.
L. P. Harrison.....Cadet Sergeant.
T. R. Hearon.....Cadet Sergeant.
J. L. McCorkle.....Cadet Sergeant.
B. Woodard.....Cadet Sergeant.
R. J. Forbiger.....Cadet Corporal.
A. Hall.....Cadet Corporal.
B. Patrick.....Cadet Corporal.
J. L. Wilson.....Cadet Corporal.
O. B. Reynolds.....Cadet Corporal.

SIGNAL CORPS.

T. L. Gaddy.....Cadet Captain.
H. H. Kimball.....Cadet First Lieutenant.
W. P. Robert.....Cadet First Sergeant.

FIRST BATTALION.

W. R. Cruthirds.....Cadet Major.
H. L. Simmons.....Cadet First Lieutenant and Battalion Adjutant.
H. D. Falls.....Cadet Second Lieutenant and Battalion Quartermaster and Commissary.
C. Lyle.....Cadet Battalion Sergeant Major.

Company "A":

G. W. Thaxton.....Cadet Captain.
C. Smith.....Cadet First Lieutenant.
W. E. Simmons.....Cadet Second Lieutenant.

SERGEANTS.

W. W. Broome, First Sergeant.

Casey Smith, W. L. Addington, J. L. Roark,
J. E. Vaughn.

CORPORALS.

H. G. Sargent, D. O. Langstaff, J. C. Rimes,
S. E. Jolly, L. G. Plyler, H. G. Ewell.

Company "B":

E. L. Brien.....Cadet Captain.
C. O. French.....Cadet First Lieutenant.
C. P. Rawls.....Cadet Second Lieutenant.

SERGEANTS.

W. C. Maute, First Sergeant.

A. E. Bonelli, H. A. Hesse, L. L. Paxton,
A. H. Greer, C. C. Greer.

CORPORALS.

P. P. Williams, H. J. Mink, M. C. Guerry,
A. J. Miller, H. R. Wooten, L. V. Thompson.

Company "C":

A. B. Curet.....Cadet Captain.
M. M. Baxter.....Cadet First Lieutenant.
C. A. Hughes.....Cadet Second Lieutenant.

SERGEANTS.

J. C. Reddock, First Sergeant.

R. V. Upshaw, L. R. Saucier, W. J. Frederick,
O. W. Collins, C. S. Whittington, J. C. Smith.

CORPORALS.

J. F. Scoggin, D. D. Caldwell, H. C. Harris,
D. H. Crosby, C. Sparkman, J. A. Taylor,
H. M. Kennon.

Company "D":

H. Y. Jumper.....Cadet Captain.
C. G. Neal.....Cadet First Lieutenant.
B. Morris.....Cadet Second Lieutenant.

SERGEANTS.

R. H. Shackelford, First Sergeant.

H. W. Nugent, R. Cox, A. M. Shelton,
E. Abbott, F. B. Pittman.

CORPORALS.

A. McIntosh, L. H. Stuttz, J. W. Crump,
J. W. Giffin, L. V. Thompson.

SECOND BATTALION.

W. B. Mayfield.....Cadet Major.
W. E. Worsham.....Cadet First Lieutenant and Battalion Adjutant.
L. C. Mosley.....Cadet Second Lieutenant and Battalion Quartermaster and Commissary.
W. C. Powe.....Cadet Battalion Sergeant Major.

Company "E":

J. R. Hamilton.....Cadet Captain.
L. O. Smith.....Cadet First Lieutenant.
W. Treleaven.....Cadet Second Lieutenant.

SERGEANTS.

T. O. Brewer, First Sergeant.

M. F. Knost, W. R. Jones, C. N. Brandon,
L. G. Jean P. G. Bedenbough, W. M. Willingham.

CORPORALS.

W. H. Bobo, C. A. Morris, O. F. Magee,
J. H. Gormon, R. E. Jackson, H. G. Gladney.

Company "F":

J. A. King.....Cadet Captain.
L. E. Lea.....Cadet First Lieutenant.
F. C. Weems.....Cadet Second Lieutenant.

SERGEANTS.

J. V. Pace, First Sergeant.

J. M. Pearson, W. M. Scales, H. L. King.

CORPORALS.

J. F. McCormick, R. B. King, H. I. Neal,
T. J. Dean, G. P. McDonald, W. C. Sanson.

Company "G":

W. M. Stark.....Cadet Captain.
J. W. Crane.....Cadet First Lieutenant.
J. T. Lloyd.....Cadet Second Lieutenant.

SERGEANTS.

S. J. Hillman, First Sergeant.

P. G. Ward, E. Brunson, F. W. Truss,
E. M. Goddard, N. S. Martin.

CORPORALS.

O. F. Cork, L. W. Cox, J. H. Crumpton,
R. G. Molpus, B. H. Turner, M. L. Linch.

Company "H":

R. V. Hood.....Cadet Captain.
H. H. Lawley.....Cadet First Lieutenant.
C. W. Johnson.....Cadet Second Lieutenant.

SERGEANTS.

C. C. Smith, First Sergeant.

G. W. Luster,	J. W. Butler,	G. S. Vincent,
	J. G. Haigler.	

CORPORALS.

A. C. Dickson,	S. S. Holder,	W. W. Quinn,
A. W. Futvoye,	J. C. Barrett,	A. L. Morris,
	C. R. Welborn.	

THIRD BATTALION.

A. G. Hamilton.....Cadet Major.

———— .....Cadet First Lieutenant and Battalion Adjutant.

W. B. Hall.....Cadet Second Lieutenant and Battalion Quartermaster and Commissary.

W. Lofton.....Cadet Battalion Sergeant Major.

Company "I":

N. S. Adams.....Cadet Captain.

I. C. Ingram.....Cadet First Lieutenant.

E. L. Roberts.....Cadet Second Lieutenant.

SERGEANTS.

C. F. Sutherland, First Sergeant.

W. S. Turner,	W. K. Hornbuckle,	G. B. Hummel,
G. W. Howard,	F. A. Livingston,	R. H. B. Gladney.

CORPORALS.

M. H. Polk,	J. L. Shannon,	A. McClure,
J. L. Slaughter,	F. M. Wilson,	A. J. Fuqua,
M. E. Cole,	C. H. Williams,	K. D. Jacob.

Company "K":

A. J. Wheeler.....Cadet Captain.

G. E. Sheffield.....Cadet First Lieutenant.

E. W. Sullivant.....Cadet Second Lieutenant.

SERGEANTS.

B. S. Travis, First Sergeant.

R. C. Pittman,	L. Lamar,	M. L. Grimes,
G. T. Neil,	T. B. Gray.	

CORPORALS.

C. H. McCarty,	C. C. Dinkins,	E. S. Williford,
F. G. Kenney,	O. E. Maxwell,	L. R. Ladnier.

Company "L":

T. M. Robinson.....Cadet Captain

R. H. Donald.....Cadet First Lieutenant.

J. L. E. Lauderdale.....Cadet Second Lieutenant.

SERGEANTS.

H. B. Arnold, First Sergeant.

E. R. Elliot,	A. C. Halbert,	D. E. McWilliams,
	L. B. Rogers.	

CORPORALS.

S. D. Case,	M. Taylor,	G. T. Reddington,
C. J. Campbell,	A. N. Horn,	A. S. Mason,
	E. H. Starr.	

Company "M":

R. H. Batty.....Cadet Captain

T. P. Cassidy.....Cadet First Lieutenant.

W. E. McMahon.....Cadet Second Lieutenant.

SERGEANTS.

J. C. McKee, First Sergeant.

H. P. Smith,	G. C. Farrish,	J. T. Barbarin,
	R. H. Stewart.	

CORPORALS.

E. H. Venable,	O. F. Oswalt,	J. A. Oswalt,
W. C. McCloud,	T. M. Ferguson.	

REGISTER OF STUDENTS.

GRADUATE STUDENTS.

Anderson, J. R. Jr.	Industrial Education.
Arnold, G. F.	Zoology.
Bibby, F. F.	Zoology.
Carothers, A. B.	Botany.
Coleman, J. M.	Chemistry.
Davis, M. M.	Agriculture.
Gernon, W.	Dairying.
Grantham, H. G.	Bacteriology.
Howell, W. C.	Physics.
Lominick, W. R.	Agriculture.
McLavy, J. R.	Chemistry.
Mingee, E. W.	Industrial Education.
Peterson, J. B.	Electrical Engineering.
Pollard, H. T.	Agriculture.
Steele, C. G.	Horticulture.
Treleaven, H. H.	
Vernon, W. E.	Agricultural Engineering.
Raney, E. R.	Agricultural Engineering.

UNDERGRADUATES.

SENIOR CLASS.

AGRICULTURAL COURSE.

NAME.	COUNTY.	POSTOFFICE.
Anderson, L. W.	Jones	Ovett
Anderson, W. E.	Bolivar	Scott
Anthony, J. C.	Harrison	Wiggins
Bailey, J D.	Attala	Ethel
Batty, R. H.	Pearl River	Picayune
Blythe, J. C.	Adams	Natchez
Boyd, H L.	Pike	Holmesville
Brien, E L. Jr.	Warren	Vicksburg
Buchanan, R.	Tallahatchie	Grenada
Calcote, W. H.	Lincoln	Lucien
Case, J. G	Clark	Stonewall
Cassidy, T. P.	Lee	Saltillo
Cooper, A. S.	Yazoo	Yazoo City
Craft, F L.	Attala	West
Curet, A. B.	Hancock	Kiln
Cutrer, T. H.	Pike	Osyka
Deen, S. R.	Jeff. Davis	Bassfield
Dickey, E. K.	Pike	Magnolia
Evans, W. A.	Monroe	Muldon

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Falls, H. D	Oktibbeha	Starkville
Felton, L. N	Hinds	Learned
Fontenot, J. A.	*Louisiana	Cataro
French, C. O.	Franklin	Hamburg
Gaddy, T. L.	Monroe	Amory
Gardner, F. W.	Lee	Belden
Goza, J. B.	Claiborne	Hermanville
Gracy, J. P.	Lee	Verona
Gray, C. F.	Tallahatchie	Sumner
Gray, W. G.	Forest	Hattiesburg
Hamilton, A. G.	Panola	Batesville
Hamilton, J. R.	Chickasaw	Houlka
Hardaway, J. W.	Benton	Michigan City
Hartness, L. B.	Oktibbeha	Starkville
Hinton, E. F.	Madison	Flora
Hogg, G. A.	*Arkansas	Pine Bluff
Hood, R. V.	Jones	Moselle
Hughes, C. A.	Alcorn	Kossuth
Ingram, I. C.	Winston	Plattsburg
Jones, H. T.	Marshall	Holly Springs
Jopes, I.	Hancock	Logtown
Jumper, H. Y.	Prentiss	Rienzi
Kimball, G. B.	Oktibbeha	Agricultural College
King, J. A., Jr.	Chickasaw	Egypt
Korb, A. F.	Oktibbeha	Agricultural College
Lauderdale, J. L. E.	Quitman	Sledge
Lawley, H. H.	Lowndes	Columbus
Lea, L. E.	Jasper	Waldrup
Lewellen, W. E.	Prentiss	Baldwyn
Lewis, H. D.	Harrison	Long Beach
McAlister, J. T.	Madison	Way
McArthur, J. N.	Kemper	Gholson
McMahon, W E.	Sunflower	Indianola
Miner, R. C.	Lamar	Lumberton
Moose, Jno. M., Jr.	*Arkansas	Little Rock
Morris, B.	Marion	Columbia
Neal, C. G.	Tallahatchie	Webb
Noble, C. R	Hinds	Learned
Oliver, J., Jr.	Lowndes	Columbus
Parker, W. C.	Copiah	Crystal Springs
Renfrow, S. A.	Copiah	Beauregard
Roberts, E. L.	Walthall	Tylertown
Robinson, T. M.	Hinds	Jackson
Scherer, J E.	*Texas	Weatherford
Scott, W. J.	Tate	Coldwater
Sharpe, J. H.	*Louisiana	Lee Bayou
Short, C. G.	Panola	Sardis
Short, H. G	Panola	Sardis
Smith, Clyde	Walthall	Tylertown
Smith, G. W.	Lauderdale	Increase
Smith, L. O.	Chickasaw	Van Vleet
Spurlock, K. L.	Amite	Summit
Stanton, H. W.	*Tennessee	Memphis
Swann, P. R.	Noxubee	Macon

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Tate, J. J.	Pike	Osyka
Tate, T. O.	Jones	Laurel
Treleaven, W.	*Louisiana	New Orleans
Wallace, H. F.	Oktibbeha	Starkville
Watson, J. A., Jr.	Lowndes	Columbus
Wheeler, A. J.	Newton	Newton
Williamson, B. A.	Wilkerson	Woodville
Worsham, W. E.	*Louisiana	New Verda
York, W.	Yalobusha	Coffeeville

ENGINEERING COURSE.

Agnew, P. B.	Lee	Baldwyn
Anderson, C. L.	Madison	Flora
Baxter, M. W.	Lamar	Baxterville
Bernhardt, L. P.	Grenada	Holcomb
Brandt, H. C.	Harrison	Pass Christian
Catching, C. B.	Copiah	Georgetown
Crane, J. W.	Clay	West Point
Day, L.	Wilkerson	Woodville
Donald, R. H.	Clarke	Quitman
D'Olive, C. B.	Forest	Hattiesburg
Henkel, M. R.	Lowndes	Crawford
Johnson, C. W.	Harrison	Gulfport
Johnson, M S.	Lowndes	Artesia
Jones, V. N.	Leflore	Schlater
Lloyd, J. T.	Clay	West Point
McInturff, R. H.	Pike	McComb
Miller, O. J.	Hinds	Jackson
Mosley, L. C.	Clarke	Shubuta
Pierce, H. R.	*Alabama	Montgomery
Rawls, C. P.	Forest	Rawls Springs
Scott, D. M.	Wilkinson	Woodville
Stark, W. M.	*Tennessee	Memphis
Thaxton, G. W.	Scott	Lake
Tillman, E. C.	Wilkinson	Centerville
Vance, W. D.	Calhoun	Slate Springs
Weems, F. C.	Clarke	Shubuta
Willemain, F. H.	*Massachusetts	Holvoke

GENERAL SCIENCE COURSE.

Adams, N. S.	Yazoo	Yazoo City
Baggett, A. J.	Sharkey	Anguilla
Butts, J. L.	Lowndes	Artesia
Gibbes, H. G.	Hinds	Learned
Kimball, H. H.	Hinds	Jackson
Kimbrough, M. M.	Grenada	Holcomb
Kirkpatrick, L. L.	Oktibbeha	Starkville
McArthur, D.	Oktibbeha	Starkville
Netto, L. J.	Jackson	Ocean Springs
Williams, W. B.	Jefferson Davis	Prentiss

INDUSTRIAL EDUCATION COURSE.

Anderson, W. E. H.	Yazoo	Zeiglerville
Cruthirds, W. R.	Harrison	Lyman

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Hall, W. B.	Jasper	Lake Como
Hobby, E. L.	Winston	Plattsburg
Lewis, R. E.	Lauderdale	Meridian
Loper, H.	Scott	Lake
Mayfield, W. B.	Lafayette	Etta
Sheffield, G. E.	Itawamba	Ratliff
Simmons, H. L.	Pike	Magnolia
Simmons, W. E.	Pike	Magnolia
Smith, M. E.	Lincoln	McCall Creek
Sullivant, E. W.	Attala	Kosciusko

JUNIOR CLASS.

AGRICULTURAL COURSE.

Agnew, F.	Lee	Baldwyn
Anthony, B. F.	Harrison	Wiggins
Arnold, H. B.	Walthall	Holmesville
Arnold, M. H.	Oktibbeha	Starkville
Baker, H. C.	Rankin	Brandon
Bedenbough, P. G.	Lafayette	Como
Blanton, C. H.	Chocktaw	Ackerman
Bonelli, A. E.	Warren	Vicksburg
Bonner, J. E.	Tallahatchie	Oakland
Box, W. E.	Clarke	Shubuta
Brashier, C. E.	Clarke	Shubuta
Broome, W. W.	Holmes	Lexington
Brumfield, H. B.	Pike	Magnolia
Brunson, E.	Clarke	Enterprise
Carpenter, W. H.	Oktibbeha	Starkville
Chambers, B. L.	Oktibbeha	Starkville
Cliett, H. A.	Clay	Pheba
Coleman, C. D.	Winston	Louisville
Collins, O. W.	Jones	Ellisville
Cook, W. H.	Forest	Hattiesburg
Cowsert, G. D.	Holmes	Goodman
Cox, R.	Prentis	Booneville
Crosby, H. T.	Washington	Leland
Crump, B. S.	Washington	Greenville
Dixon, B. A.	Yazoo	Vaughn
Eason, G. G.	De Soto	Cockrum
Elliott, E. R.	*Louisiana	New Orleans
Few, W. C.	Webster	Eupora
Figg, F. E.	Panola	Courtland
Frederick, W. J.	Harrison	Gulfport
Gibson, J. B.	Copiah	Barlow
Gray, T. B.	Jasper	Montrose
Greer, C. C.	Lincoln	Bogue Chitto
Grimes, M. L.	Itawamba	Ratliff
Guess, E. C.	Sunflower	Goldfield
Gunn, B. R.	Oktibbeha	Starkville
Harris, H. V.	*Tennessee	Leapwood
Harrison, C. F.	Madison	Canton
Hearon, T. R.	Forest	Hattiesburg
Hinchcliff, W. B	Quitman	Hinchcliff
Howard, G. W.	Bolivar	Cleveland

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Hummel, G. B.	Oktibbeha	Starkville
Jackson, I. M.	Tishomingo	Iuka
Jones, J. R.	Carroll	Black Hawk
King, H. L.	Chickasaw	Buena Vista
Knight, R. R.	Rankin	Brandon
Lamar, L.	Copiah	Crystal Springs
Lee, H. W.	Pearl River	Carriere
Liston, L. J.	Montgomery	Kilmicheal
Liston, W.	Montgomery	Kilmicheal
Lyle, C.	Scott	Hillsboro
Magruder, R H.	Oktibbeha	Starkville
Martin, F. A.	Rankin	Pelahatchie
Martin, N. S.	Lauderdale	Meridian
May, C. L.	Simpson	D'Lo
McArthur, R.	Kemper	Gholson
McClain, W. H.	Washington	Greenville
McEachern, R. S.	Carroll	Vaiden
McKee, J. C.	Oktibbeha	Agricultural College
McWilliams, D. E.	Kemper	Daleville
Miller, H. L.	Covington	Mt. Olive
Moose, Jas. M.	*Arkansas	Little Rock
Neill, G. f.	Jasper	Montrose
Newton, J. W.	Leflore	Itta Bena
Nickels, C. B.	Oktibbeha	Starkville
Owens, C. F.	Walthall	Tylertown
Pace, J. V.	Scott	Lake
Patten, T. W.	Walthall	Tylertown
Pearson, J. M.	Chickasaw	McCondy
Pickett, N. T.	Marion	Columbia
Pittman, F. B.	Wayne	Waynesboro
Pittman, R. C.	Yalobusha	Coffeville
Powers, H. B.	Holmes	Goodman
Price, J. H.	Scott	Forkville
Prichard, L. M., Jr.	Oktibbeha	Starkville
Pryor, R. W.	Clay	West Point
Pyburn, W. J.	Adams	Washington
Ranck, W. A.	Oktibbeha	Agricultural College
Reddock, J. C.	Jones	Summerland
Reeves, G. C.	Pike	McComb
Rodgers, L. B., Jr.	Hinds	Jackson
Roseborough, W. D.	Tate	Senatobia
Rowan, J. K.	Jones	Laurel
Saunders, T. A.	Oktibbeha	Starkville
Shaw, M. J.	Choctaw	Ackerman
Shelton, A. M.	Quitman	Lambert
Simmons, M. L.	Lauderdale	Meridian
Smith, Casey	*Tennessee	Brunswick
Smith, C. C.	Tishomingo	Iuka
Smith, H. P.	Pearl River	Anner
Stevens, B.	Forest	Hattiesburg
Stewart, R. H.	Pearl River	Ceasar
Sudduth, W. R.	Oktibbeha	Starkville
Sullivan, W. W.	Tallahatchie	Webb
Sutherland, C. F.	Bolivar	Benoit
Tate, W. L.	Pike	Osyka

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Thomas, T. A.	*Tennessee	Memphis
Travis, B. S.	Amite	Peoria
Upshaw, R. V.	Holmes	Pickens
Vaughn, J. E.	Kemper	Scooba
Veazey, W. J.	Tate	Senatobia
Vincent, G. S.	Wishington	Greenville
Walton, I. H.	Newton	Newton
Watson, W. B.	Holmes	Lexington
Weeks, L. R.	Copiah	Barlow
Weems, A. H.	Clarke	Shubuta
Wheatley, W. F.	Washington	Greenville
Whittington, C. S.	Franklin	Eddiceton
Williams, Jas. H.	Hinds	Jackson
Williams, Jno. H.	Jefferson Davis	Prentiss
Willingham, W. M.	Webster	Eupora
Young, M. T.	Madison	Canton

ENGINEERING COURSE.

Addington, W. L.	Yalobusha	Water Valley
Applewhite, J. P.	Montgomery	Winona
Barreda, D. P.	Jackson	Pascagoula
Bethea, J. D.	Lamar	Sumrall
Brandon, C. N.	Monroe	Prairie
Brewer, T. O.	Tate	Senatobia
Buchanan, W. L.	Wilkinson	Centerville
Butler, J. W.	Clarke	Quitman
Cate, S. L.	Tate	Coldwater
Chambers, S. B.	Forest	Hattiesburg
Cox, L. K.	Panola	Batesville
Fox, W. L.	Harrison	Lyman
George, R. B.	Jones	Ovett
Gladney, R. H. B.	Panola	Sardis
Goddard, E. M.	Oktibbeha	Starkville
Haigler, J. G.	Perry	Richton
Harrison, L. P.	Madison	Canton
Hesse, H. A.	Pike	McComb
Hillman, S. J.	Greene	Leakesville
Hollingsworth, W. H.	Attala	Kosciusko
Hood, J. R.	Harrison	Saucier
Hornbuckle, W. K.	Alcorn	Corinth
Jean, L. G.	Chickasaw	Houston
Jones, W. R.	Claiborne	Hermanville
Knost, M. F.	Harrison	Pass Christian
Lewis, F. J.	Harrison	Long Beach
Livingston, F. A.	Winston	Louisville
Lofton, W.	Lincoln	Brookhaven
Martin, M. T.	*Florida	Tampa
Maute, W. C.	Warren	Vicksburg
McCorkle, J. L.	Tallahatchie	Charleston
McLeod, C. H.	Covington	Mt. Olive
McPhate, S. D.	Adams	Natchez
McWillie, T. A.	Alcorn	Corinth
Miller, E. C.	Covington	Collins
Miller, J. J.	Pike	Magnolia

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Nevers, P. J.	Harrison	Gulfport
Newkirk, R. L.	Tallahatchie	Charleston
Nugent, H. W.	Bolivar	Rosedale
Osborne, P. L.	Lamar	Sumrall
Powe, W. C.	Newton	Newton
Rittelmeyer, J. M.	Marshall	Holly Springs
Saucier, L. R.	Harrison	Saucier
Scales, W. M.	Oktibbeha	Starkville
Shackelford, R. H.	Washington	Greenville
Stewart, J. N.	Pike	McComb
Taylor, C. W.	Rankin	Pelahatchie
Truss, F. W.	Oktibbeha	Starkville
Turner, W. S.	Lowndes	Crawford
Vaughn, V. A.	Oktibbeha	Agricultural College
Ward, P. G.	George	Lucedale
Woodward, B.	Winston	Louisville

GENERAL SCIENCE COURSE.

Abbott, E., Jr.	Leflore	Minter City
Barbarin, J. T.	Quitman	Marks
Biglane, O. J.	Covington	Collins
Brandt, B. B.	Harrison	Pass Christian
Byrd, C. C.	Kemper	Binnsville
Cartmell, L. E.	Adams	Natchez
Davis, P. D.	Lauderdale	Meridian
Dyer, R. N.	*Louisiana	Morgan City
Eichelberger, O. H.	Lowndes	Columbus
Evans, N. P.	Clarke	Quitman
Farish, G. C.	Carroll	Sidon
Greer, A. H.	Lincoln	Bogue Chitto
Henson, F. E.	Tallahatchie	Enid
Jones, L. J.	Montgomery	Winona
Kleban, L.	Oktibbeha	Starkville
Lee, L. E.	Jasper	Waldrup
Luster, G. W.	Hinds	Edwards
Maxwell, M. C	De Soto	Nesbitt
Middleton, J. E.	Lincoln	Brookhaven
Middleton, R. E.	Lincoln	Brookhaven
Montgomery, S. A.	Wilkinson	Centerville
Newsom, C.	Lauderdale	Meridian
Powell, J. C	*Alabama	Bay Minette
Pylant, G. D.	Lamar	Purvis
Reagan, L. B.	Bolivar	Boyle
Roark, J. L.	Yalobousha	Water Valley
Sheffield, C. F.	Calhoun	Pittsboro
Smith, J. C.	Bolivar	Benoit
Trotter, C. P.	Attala	Vaiden

INDUSTRIAL EDUCATION COURSE.

Armstrong, A. B.	Lincoln	Sontag
Banks, L. D.	Tunica	Banks
Brown, D. W.	Itawamba	Ratliff
Campbell, A. R.	Lamar	Sumrall
Few, S J.	Webster	Eupora
Greaves, H. B.	Madison	Flora

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Halbert, A. C.	Lowndes	Columbus
McGough, Mc. N.	Scott	Morton
O'Quinn, C. L.	Pike	Magnolia
Stokes, J. R. G.	Scott	Morton
Storer, A. M., Jr.	Attala	Kosciusko

SOPHOMORE CLASS.

AGRICULTURAL COURSE.

Abbott, H. G.	Calhoun	Vardaman
Adams, E. L.	Chickasaw	Okolona
Algots, M. G.	*Louisiana	Raceland
Alsworth, L A.	Leflore	Greenwood
Arnold, T. A.	Webster	Eupora
Atkinson, J. F.	Winston	Louisville
Bailey, R. L.	Attala	Kosciusko
Barksdale, E. H.	Rankin	Goshen Springs
Barry, W. S.	Leflore	Greenwood
Blair, J. C.	*Tennessee	Collierville
Blount, E. A.	Yazoo	Yazoo City
Bobo, W. H.	Coahoma	Bobo
Bounds, H. G.	Simpson	Mendenhall
Breland, N. B.	Hancock	Anner
Brickell, E C.	Yazoo	Yazoo City
Briggs, C. N.	Newton	Newton
Brown, I. W.	Lowndes	Caledonia
Brunson, L. L.	Oktibbeha	Agricultural College
Bryant, R.	*Louisiana	New Orleans
Bush, R. H.	Jones	Soso
Bush, R. R.	Hinds	Learned
Butts, J. D.	Lowndes	Artesia
Carpenter, H. H.	Oktibbeha	Sessums
Cason, J. T.	Coahoma	Clarksdale
Catchings, T. F.	Wilkinson	Woodville
Champion, S. S	Hinds	Edwards
Chaney, E. R.	Bolivar	Rosedale
Chapman, C. E.	Hinds	Pocahontas
Chiles, C. L.	Oktibbeha	Starkville
Coker, R. J.	Yazoo	Yazoo City
Colmer, E. B.	Forest	Hattiesburg
Comfort, W. A.	Attala	Kosciusko
Cork, O. F.	Choctaw	Ackerman
Cosnahan, F. S.	Lincoln	Norfield
Crosby, D. H.	Jones	Ellisville
Crow, M. T.	Oktibbeha	Starkville
Crump, J. W.	Washington	Greenville
Crumpton, J. R.	Oktibbeha	Sturgis
Crumpton, W. M.	Oktibbeha	Starkville
Dinkins, C. C.	Madison	Canton
Duke, L.	Panola	Central Academy
Durham, M. B.	Tippah	Blue Mountain
Dyess, M. G.	Jones	Laurel
Emmerich, J. O.	Pike	McComb
Evans, Roy B.	Leflore	Sunnyside

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Ferris, T. M.	Washington	Hollandale
Fleming, C. D.	Clarke	Carmichael
Fuqua, A. J.	Lowndes	Columbus
Furr, W. C.	Claiborne	Hervey
Gholson, C.	Lowndes	Artesia
Graham, B. C.	Bolivar	Cleveland
Guerry, M. C.	Lowndes	Artesia
Halliburton, F.	Bolivar	Dahomy
Hand, T. E.	Jones	Ellisville
Harris, J. T.	Bolivar	Skene
Hartness, H. D.	Oktibbeha	Starkville
Hearn, J. N.	Holmes	Ebenezer
Henderson, R. E.	Holmes	Goodman
Horton, G. C.	Montgomery	Kilmichael
Hurst, J. I.	Winston	Fern Springs
Jackson, R. E.	Noxubee	Prairie Point
Jolly, S. E.	Lauderdale	Meridian
Jones, J. D.	Lafette	Burgess
Jordan, F. B.	Jones	Ellisville
Kelly, W. B.	Pontotoc	Ecru
Kennon, H. M.	*Louisiana	Monroe
Kizer, J. G.	Marshall	Red Banks
Lancaster, R. M.	Alcorn	Wennasoga
Landrum, W. M.	Jones	Ovett
Lawley, J. B.	Lowndes	Columbus
Lightcap, T. M.	Yazoo	Yazoo City
Little, J. B.	Forest	Hattiesburg
Logan, B. G.	*Alabama	Theodore
Lutken, A.	Hancock	Logtown
Magee, O. F.	Walthall	Tylertown
Martin, G. I.	Lauderdale	Meridian
Mason, A. S.	Clark	Quitman
McBride, B. A.	Holmes	Goodman
McCarthy, J. T.	Lee	Saltillo
McCormick, J. F.	Covington	Collins
McCormick, H. P.	Lincoln	Bogue Chitto
McGinnis, C.	Panola	Sardis
McKay, M. B.	Claiborne	Hervey
McKee, R. W., Jr.	Yazoo	Yazoo City
Melton, L. S.	Madison	Canton
Middleton, C. B.	Pike	McComb
Mink, H. J.	Tishomingo	Tishomingo
Molpus, R. G.	Lauderdale	Meridian
Morgan, W. H.	Carroll	N. Carrollton
Morris, C. A.	Walthall	Tylertown
§Morris, J. B.	† *Tennessee	Eads
Mullican, J. R.	Copiah	Wesson
Murray, G. W.	Jones	Summerland
Neal, H. I.	Chickasaw	Houston
Nichols, A. N.	Yazoo	Vaughn
Oakes, M. C.	Attala	McCool
Oswalt, F.	Oktibbeha	Longview
Oswalt, J. A.	Oktibbeha	Longview

*Outside the State.

§Deceased.

NAME.	COUNTY.	POSTOFFICE.
Pegues, P.	Pontotoc	Pontotoc
Plyler, L. G.	Attala	Hesterville
Polk, L. S.	*Arkansas	Corning
Polk, M. H.	*Louisiana	Shreveport
Reed, A. S.	Winston	Fern Springs
Rich, C. S.	Perry	Richton
Sansom, W. C.	Chickasaw	Okolona
Saunders, W. B.	Leflore	Greenwood
Schesler, T. V.	Adams	Natchez
Scoggins, J. F.	Jones	Laurel
Segrest, D. O.	Claiborne	Peyton
Shannon, J. L.	*Tennessee	Greenfield
Snelton, J. T.	Jefferson	Fayette
Shepard, E. B.	Hinds	Jackson
Slocum, R.	Tate	Coldwater
Sparkman, C.	Noxubee	Shuqualak
Stallings, W. B.	Noxubee	Brooksville
Starr, E H.	Quitman	Sledge
Stockett, S. O.	Wilkinson	Turnbull
Stutts, L. H.	Prentiss	Booneville
Swann, F. O.	Adams	Briers
Thomas, J. A.	Oktibbeha	Maben
Thomas, O. W.	Attala	West
Thompson, L. V.	Oktibbeha	Maben
Tucker, H. P.	Bolivar	Pace
Turner, J. M.	Neshoba	Dixon
Venable, E. H.	Forest	Hattiesburg
Waldauer, E.	Washington	Greenville
Wall, J. A.	*Arkansas	Holly Grove
Walton, E. M.	Coahoma	Clarksdale
Walton, O. L.	Newton	Newton
Ware, J. A.	Montgomery	Duckhill
Wax, H. O.	Oktibbeha	Maben
Williams, C. H.	Bolivar	Mingo
Williford, E. S.	Carroll	Carrollton
Wilson, J. L.	Panola	Batesville
Wilson, R. A. N.	Panola	Batesville
Windham, J. L.	Scott	Homewood
Winston, C. S.	Bolivar	Scott
Woody, C. O.	Marshall	Mt. Pleasant
Wooten, A. W.	Lowndes	Artesia
Wrenn, F. G.	Yalobusha	Oakland
Wyatt, W. E.	Lauderdale	Meridian

ENGINEERING COURSE.

Agnew, R. P.	Lee	Baldwyn
Allen, T. G.	Marion	Bassfield
Ball, W. M.	Walthall	Tylertown
Ballard, H. D.	Montgomery	Winona
Barbour, J. P.	Yazoo	Yazoo City
Bennett, R. H.	Forest	Hattiesburg
Billingsley, E. A.	Lee	Baldwyn
Brady, H.	Lee	Nettleton
Brandon, M. M.	Wilkinson	Pinckneyville
Brownlee, R. O.	Clarke	Shubuta

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Bryant, C. V.	Smith	Mize
Caldwell, D. D.	Copiah	Crystal Springs
Carr, S. F.	Coahoma	Clarksdale
Case, S. D.	Madison	Canton
Clower, E. G.	Holmes	Lexington
Cooper, H. L.	Yazoo	Yazoo City
Crowder, W. B.	Jones	Ovett
Culley, E. C.	Madison	Madison
Davis, W. P.	Jackson	Escatawpa
Day, D.	Wilkinson	Woodville
Denham, G. B.	Forest	Hattiesburg
Dickson, A. C.	Jackson	Escatawpa
Dufore, W. R.	Lamar	Epley
Evans, J. M.	Marion	Bassfield
Falk, H. W.	Hinds	Jackson
Farbriger, R. J.	*Kansas	Atchinson
Ferguson, T. M.	Forest	Hattiesburg
Filgo, L. C.	Lee	Verona
Frazier, W. W.	Clay	West Point
Futvoye, A. W.	Noxubee	Shuqualak
Garmon, J. H.	Lee	Verona
Gillespie, W. H.	Clark	Shubuta
Gladney, H. G.	Chickasaw	Houston
Greer, P. A.	Lincoln	Brookhaven
Hale, E. M.	Alcorn	Kossuth
Hall, A.	Hinds	Jackson
Hamner, T. C.	*Tennessee	Cordova
Harnes, E.	Pike	McComb
Harris, H. C.	Hinds	Jackson
Hester, J. C.	Smith	Taylorsville
Holder, S. S.	Tishomingo	Binnsville
Holliday, O. W.	Copiah	Hazelhurst
Horne, A. N.	Scott	Morton
Howell, H. G.	Copiah	Crystal Springs
Jones, T. R.	Claiborne	Hermanville
Kanady, H. J.	Tallahatchie	Charleston
King, R. B.	Chickasaw	Egypt
Ladnier, L. R.	Jackson	Pascagoula
Langstaff, D. O.	Holmes	Durant
Lowrey, W. T.	Tippah	Blue Mountain
Malvaney, E. L.	Hinds	Jackson
Marks, L. F.	Adams	Natchez
Maxwell, O. E.	Lincoln	Brookhaven
McBee, D. G.	Holmes	Lexington
McDonald, G. P.	Covington	Collins
McDuffie, B. M.	Lee	Nettleton
Miller, A. J.	Copiah	Crystal Springs
Miller, J. A.	Yazoo	Silver City
Mitchell, O. L.	Choctaw	Eupora
Moffat, P. K.	*Louisiana	Washington
Montague, R. A.	Forest	Hattiesburg
Montgomery, W. S.	Clay	West Point
Morris, A. L.	Harrison	Gulfport
Newkirk, R. L.	Tallahatchie	Charleston

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Newton, G. E.	Lowndes	Caledonia
Parker, J. H.	Lauderdale	Meridian
Patrick, B.	Prentiss	Booneville
Peeler, W. C.	Prentiss	Booneville
Pickens, W. N.	Holmes	Lexington
Quinn, W. W.	*Kentucky	Nicholasville
Reddington, G. T.	Hinds	Jackson
Reid, W. M.	Madison	Canton
Reynolds, O. B.	Alcorn	Corinth
Roberts, A. M	Claiborne	Port Gibson
Robertson, C. H.	Tippah	Ripley
Robinson, A.	Leflore	Itta Bena
Robinson, J. F., Jr.	Hinds	Jackson
Rogers, J. A.	Holmes	Lexington
Shaifer, A. K.	Claiborne	Port Gibson
Slay, M. F.	Copiah	Crystal Springs
Sloan, K. H.	Adams	Natchez
Smith, J. F.	Madison	Canton
Springer, C. T.	Webster	Mantee
Stewart, M. G.	Adams	Natchez
Strahan, C. A.	Forest	Hattiesburg
Sugden, J. A.	Harrison	Long Beach
Swartzfarger, B. W.	Bolivar	Scott
Taylor, J. A.	Forest	Hattiesburg
Traxler, D. A.	Claiborne	Port Gibson
Tutor, W. F.	Pontotoc	Pontotoc
Wall, W. E.	Wilkinson	Pond
Ward, B. P.	Harrison	Pass Christian
Welborn, C. R.	Hattiesburg	Forest
Welch, G. A.	Hinds	Jackson
Whiteside, J. R.	Chickasaw	Okolona
Whitney, C. W.	Madison	Canton
Whitson, E. L.	Hinds	Jackson
Williamson, A. N.	Wilkinson	Woodville
Wilson, M. E.	Warren	Vicksburg
Wooten, H. W.	Tate	Coldwater

GENERAL SCIENCE COURSE.

Barrett, J. C.	Hinds	Edwards
Brannon, R. M.	Washington	Greenville
Cambre, J. D.	Hinds	Jackson
Catchings, C. E., Jr.	Wilkinson	Woodville
Cook, H. M.	Forest	Hattiesburg
Eichelberger, M. W.	Lowndes	Columbus
Gerard, L.	Grenada	Grenada
Gray, J. S.	Noxubee	Brooksville
Hollis, E. V.	Calhoun	Vardaman
Huston, J. R.	Tate	Tyro
Johnson, G. E.	Yazoo	Bentonia
Linch, M. L.	Choctaw	Weir
Magruder, B. L.	Oktibbeha	Starkville
Major, D. D.	Lamar	Epley
Maloney, J. O.	Lauderdale	Meridian
McCluer, A.	Hinds	Jackson
McIntosh, A.	Itawamba	Ratliff

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Nixon, L. M.	Holmes	Lexington
Pryor, H. E.	Jones	Laurel
Pyburn, L. D.	Adams	Washington
Slaughter, J. L.	Rankin	Fannin
Taylor, Mc	Hinds	Jackson
Welborn, I. O.	Jones	Ellisville
Wilson, F. M.	Lowndes	Artesia
Zama, A. V.	Copiah	Hazelhurst

INDUSTRIAL EDUCATION COURSE.

AGRICULTURAL DIVISION.

Cole, M. E.	Lincoln	Ruth
Cox, L. W.	Lowndes	Columbus
Ewell, H. G.	Amite	Liberty
Harvey, O. L.	Scott	Norris
Heidelberg, E. E.	Jasper	Heidelberg
Hardy, R. H.	Lowndes	Crawford
Howard, J. W.	Clay	West Point
Jones, J. W.	Quitman	Belen
Sargent, G. T.	Choctaw	Mathiston
Turner, B. H.	Attala	McCool
Weeks, J. M.	Sunflower	Ruleville

BUSINESS DIVISION.

Barber, L. L.	Yalobusha	Water Valley
Boyce, H. D.	Tallahatchie	Glendora
Boyd, E.	Alcorn	Corinth
Childress, R. D.	Lafayette	Tyro
Collins, C. D.	Union	Myrtle
Collins, V. O.	Holmes	Ellisville
Dean, T. J., Jr.	DeSoto	Nesbitt
Deen, G. M.	Jefferson Davis	Bassfield
Deen, H. C.	Jefferson Davis	Bassfield
Fox, J. G.	Neshoba	Philadelphia
Giffin, J. W.	Winston	Louisville
Giffin, T. T.	Winston	Louisville
Gourlay, J. G.	Hinds	Terry
Hale, W. N.	Oktibbeha	Agricultural College
Hill, R. D.	Calhoun	Vardaman
Howell, W. D.	*Tennessee	Brunswick
Jackson, F. Z., Jr.	Attala	Kosciusko
Joiner, C. W.	Clay	West Point
Keeler, H. B.	*Idaho	Payette
Kinney, F. G.	Lawrence	Monticello
Lawrence, G. H.	Lowndes	Caledonia
McCormack, H.	Hinds	Jackson
McKnight, H. D.	Oktibbeha	Sessums
Miller, A. P.	Clay	Cedar Bluff
Moss, L. P.	Lauderdale	Meridian
Oden, C. S.	Jones	Laurel
Pace, N. H.	Bolivar	Pace
Rea, R. H.	Noxubee	Shuqualak
Rimes, J. C.	Walthall	Tylertown
Roberts, E. C.	Monroe	Amory

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Rogers, J. D., Jr.	Newton	Newton
Russell, C. E.	Washington	Belzoni
Terry, T. P.	Clay	Pheba
Williams, P. P.	Jefferson Davis	Prentiss

MECHANICS ARTS DIVISION.

Hinton, C. O.	Harrison	Stillmore

FRESHMAN CLASS.

AGRICULTURAL COURSE.

Andrews, W. C.	*Louisiana	Mer Rouge
Askew, W. M.	Lowndes	Mayhew
Bacot, J. S.	Lincoln	Ruth
Bacot, T. C.	Lincoln	Ruth
Bacot, T. S.	Marion	Columbia
Bader, J. L.	Coahoma	Clarksdale
Barnes, H. C.	Scott	Forrest
Barnett, B.	Sunflower	Indianola
Barrow, V. W.	Leflore	Greenwood
Bass, E. I.	*Tennessee	Good Spring
Batson, C. A.	Harrison	Recluse
Batty, R. W.	Pearl River	Picayune
Bell, T. R.	Oktibbeha	Starkville
Berryhill, W. M.	Amite	Gloster
Bethea, G. D.	Lawrence	New Hebron
Bickley, F. P.	*Alabama	Tuscumbia
Black, H. A.	Itawamba	Nettleton
Blanton, C.	Choctaw	Ackerman
Boatwright, J. O.	Holmes	Lexington
Bounds, W. E.	Simpson	Mendenhall
Brand, G. S.	Chickasaw	Buena Vista
Buehler, E. Jr.	Washington	Greenville
Burgin, C. B.	Lowndes	Mayhew
Bush, E. P.	Hinds	Terry
Carney, G. H.	Lauderdale	Meridian
Carter, H. B.	Chickasaw	Van Vleet
Chapman, F. M.	Lowndes	Columbus
Chaney, V. B.	Bolivar	Rosedale
Clark, C. G.	Winston	Louisville
Compton, E. M	Leflore	Philipp
Cook, A. B.	Warren	Bovina
Cook, H. E.	Oktibbeha	Maben
Coulson, W. G.	Jackson	Moss Point
Daniel, C. E.	Sunflower	Drew
Davenport, S. L.	Bolivar	Scott
Davis, G. N.	Oktibbeha	Cedar Bluff
Davis, J. T.	Calhoun	Sabougla
Davis, K. F.	Jackson	Escatawpa
Day, B. H.	Amite	Liberty
Dean, L. H	George	Agricola
Decell, W. W.	Copiah	Glancy
Dickson, J. J.	Hinds	Teryry
Douglass, J. M	Noxubee	Macon

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Dubose, S. R.	Coahoma	Sherard
Dyer, J. N.	Clay	Abbott
Echols, M.	Marshall	Byhalia
Ellzey, F. B.	Pike	Summit
Ervin, E. A.	Clay	West Point
Erwinn, L.	*Tennessee	Obion
Ethridge, J. E.	Lee	Shannon
Fergerson, W. L.	Wilkinson	Woodville
Fikes, B. B.	Bolivar	Scott
Fisher, L. H.	Tate	Senatobia
Fleming, C. C.	Clarke	Theadville
Gatewood, W. C.	Oktibbeha	Agricultural College
Gates, J. S.	Panola	Como
Giffin, F. H.	Winston	Louisville
Hamlin, O. F.	Clay	West Point
Hammette, O. A.	Claiborne	Alcorn
Harris, G.	Tunica	Tunica
Hartman, H. B.	*Louisiana	New Orleans
Heidt, H. C.	*Arkansas	Askew
Henderson, L. D.	Kemper	Preston
Hillman, W. G.	Greene	Leakesville
Hobson, R. T.	Washington	Greenville
Hogan, W. A.	Oktibbeha	Starkville
Hollingsworth, E. C.	Chickasaw	Buena Vista
Holloway, C. J.	Lincoln	Brookhaven
Holloway, K. W.	Lincoln	Brookhaven
Hood, B. L.	Webster	Walthal
Hoskins, M.	Pike	McComb
Howard, S.	Adams	Natchez
Hughes, H. P.	Oktibbeha	Agricultural College
Hurst, B. A.	Clay	West Point
Ivy, W. S.	Washington	Leland
Jackson, R. A.	Oktibbeha	Starkville
Jacob, E. H.	*Arkansas	West Helena
Jones, E. M.	Yalobusha	Coffeeville
Kearney, E. W.	Leflore	Money
Kline, K. E.	*Tennessee	Memphis
Lee, C.	Simpson	Mendenhall
Lindsey, J. T., Jr.	Harrison	Long Beach
Long, R. L.	Carroll	Winona
Loper, D.	Scott	Lake
Lyle, T. D.	Scott	Hillsboro
Martin, C. H.	Bolivar	Lobdell
Martin, W. P.	Wayne	Waynesboro
Maxwell, R. M.	Oktibbeha	Starkville
McAfee, J. R.	Tippah	Electric Mill
McCain, B. H.	Tate	Coldwater
McCarty, N. H.	Hinds	Jackson
McCay, B. R.	Claiborne	Utica
McCay, L.	Claiborne	Utica
McCoy, W. W.	Washington	Belzoni
Meek, W. E.	Coahoma	Clarksdale
Milam, H. H.	Tallahatchie	Charleston
Miller, C. M.	Lawrence	Silver Creek

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Miller, M. C.	Neshoba	Philadelphia
Miller, M. R.	Perry	Richton
Miller, R. V.	Washington	Greenville
Moore, E. C.	Leake	Carthage
Morris, W. T.	Pike	Fernwood
O'Quinn, B. T.	Pike	Barto
Parker, T. B.	Clarke	DeSoto
Patterson, J. W.	Simpson	Pinola
Pearson, G. B.	Claiborne	Russum
Peets, N. D.	Copiah	Wesson
Pigott, A. W.	Walthall	Tylertown
Pinkney, A. E.	*New York	New York
Prescott, R. G.	Wayne	Waynesboro
Puller, A. E.	Oktibbeha	Starkville
Pulliam, J. E.	Chickasaw	Buena Vista
Rainey, D. W.	Oktibbeha	Starkville
Ramsay, A. C.	Covington	Collins
Reynolds, W. E.	Clarke	Shubuta
Richardson, W. C.	Oktibbeha	Longview
Robert, W. P.	Oktibbeha	Agricultural College
Rodgers, J. B.	Covington	Ora
Rose, E. L.	Holmes	Goodman
Sanders, H. E.	Oktibbeha	Longview
Sanders, T. A.	Attala	West
Schwill	*Tennessee	Memphis
Self, A. W.	Lauderdale	Meridian
Sessions, J. M.	Wilkinson	Woodville
Sharbrough, F. W.	Yazoo	Holly Bluff
Sides, J. C.	*Tennessee	Moscow
Sloan, R. J.	Tate	Senatobia
Smith, O. Z.	Greene	Leakesville
Smith, R. L.	Alcorn	Corinth
Stevens, A. B.	Noxubee	Macon
Swann, A. R.	Noxubee	Macon
Thomas, A.	Jefferson	Fayette
Tillman, J. P.	Amite	Centerville
Tims, E. C.	*Louisiana	Jackson
Treleaven, P. G.	*Louisiana	New Orleans
Tucker, E. A.	Warren	Vicksburg
Turner, J. B.	Noxubee	Mashulaville
Turner, L. W.	Green	Leakesville
Underwood, L. G.	Scott	Sebastopol
Walker, G. G.	Clay	Abbott
Walker, L. D.	Lauderdale	Meridian
Wallace, C. G.	Oktibbeha	Starkville
Walton, W.	Newton	Newton
Watson, J. C.	Sunflower	Drew
Watson, W. H.	Leflore	Itta Bena
West, C. R.	Tunica	Dundee
Wheat, V. B.	Coahoma	Hillhouse
White, F. R.	Lawrence	Nola
White, H.	Lawrence	Nola
Wilson, R. A.	Sunflower	Inverness
Wiseman, A. L.	Pontotoc	Blue Springs

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Wooten, J. D.	Tate	Senatobia
Wren, W. T.	Tollahatchie	Oakland
Yeates, W. O.	Oktibbeha	Maben

ENGINEERING COURSE.

Abele, H. M.	*Tennessee	Memphis
Adams, F. R.	Harrison	Pass Christian
Anderson, W. D.	Amite	Centerville
Anding, F. K.	Pike	Summit
Barnes, W. D.	Hinds	Jackson
Beanland, J. J.	Washington	Greenville
Berry, W.	Copiah	Georgetown
Betts, R. C.	Lowndes	Columbus
Birdsong, L. E.	Smith	Mize
Blackwell, C. W.	Lafayette	Water Valley
Briscoe, C. L.	Greene	Leakesville
Buchanan, J. O.	Rankin	Brandon
Busick, L. G.	Rankin	Brandon
Campbell, R. E.	Attala	West
Carpenter, R. B.	Oktibbeha	Agricultural College
Carter, J. C.	Prentiss	Booneville
Chandler, W. S.	Lowndes	Columbus
Cockrell, B. M.	*Tennessee	Jackson
Collins, O. C.	Union	Myrtle
Cook, C. E.	Oktibbeha	Agricultural College
Crawford, D. D.	Monroe	Aberdeen
Crowder, G. P.	Clay	West Point
Daniel, J. J.	Holmes	Durant
Davidson, C. F.	DeSoto	Hernando
Davis, C. A.	Clarke	Shubuta
Dixon, G. M.	*Arkansas	Wynne
Dodds, J. S., Jr.	*Tennessee	Jackson
Drake, C. F.	Attala	West
Duncan, E. W.	Perry	Richton
Eckford, J. F.	Oktibbeha	Starkville
Ellis, J. H.	Coahoma	Clarksdale
Epps, R.	Alcorn	Corinth
Fairchild, W. A.	Jefferson Davis	New Hebron
Ford, W.	Lauderdale	Increase
Garner, M. A.	Forest	Hattiesburg
Gathings, W. B.	Monroe	Prairie
Gibbon, Q. D.	Sharkey	Egremont
Godard, R. M.	Claiborne	Hermanville
Goodman, L. N.	Oktibbeha	Starkville
Hamaker, R. P.	Sunflower	Reuben
Hammond, L. W.	Sunflower	Doddsville
Hand, W. N.	Oktibbeha	Agricultural College
Haynes, E. B.	*Louisiana	Simsboro
Horne, O. C.	Newton	Union
Howard, A.	Holmes	Durant
Hunter, F. M.	Newton	Union
Johnson, R. C.	Lauderdale	Meridian
Jordan, B. S.	Jones	Ellisville
Kline, K. E.	*Tennessee	Memphis
Larkin, M. E.	Marion	Columbia

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Lee, M. E.	Jackson	Ocean Springs
Long, J. P.	Leflore	Itta Bena
Maddox, J. H.	Bolivar	Stafford
Major, E. R.	Scott	Morton
Martin, R.	Oktibbeha	Starkville
Maxwell, C. N.	Oktibbeha	Starkville
May, J. R.	Simpson	D'Lo
McCarty, B. A.	Clarke	Enterprise
McEvilly, J. E.	Chickasaw	Okolona
McNair, E. H.	Pike	Summit
McNulty, T. C.	Lincoln	Brookhaven
Milner, W. W	Forest	Hattiesburg
Montgomery, L. L.	Clay	West Point
Mosby, E. S.	Marshall	Holly Springs
Ollson, M. F.	Jackson	Pascagoula
Pace, L. E.	Scott	Lake
Peabody, S. M.	*Missiouri	St. Louis
Peterson, W. W.	Noxubee	Brooksville
Plitt, L. E.	Wilkinson	Woodville
Preston, J. W.	Yazoo	Silver City
Price, C. A.	*Tennessee	Obion
Pulliam, J. N., Jr.	Monroe	Strongs
Robbins, F. W.	Union	New Albany
Rouse, J. E.	Walthall	Knox
Ruch, W. L.	Clarke	Shubuta
Schaefer, C. O.	Hinds	Jackson
Searcy, R. H.	Lowndes	Columbus
Sivley, A. H.	Hinds	Raymond
Smith, C. A.	Claiborne	Insmore
Smith, I. F.	Pike	Magnolia
Smith, T. J.	Jefferson	Fayette
Sproles, J. B.	*South Carolina	Greenwood
Sproles, S. R.	Yazoo	Silver City
Strahan, V. B.	Forest	Hattiesburg
Stringer, B. L.	Lawrence	Oakvale
Stringer, C. H.	Lawrence	Oakvale
Sullivan, E. B.	Leflore	Morgan City
Tays, W. A.	Prentiss	Booneville
Thompson, C. L.	Montgomery	Winona
Wadley, C. E.	Tunica	Tunica
Webb, J. J.	Warren	Silver Creek
Weems, R. H.	Clay	West Point
Wood, C. R.	Panola	Delta
Worthington, J. T.	Covington	Collins

GENERAL SCIENCE COURSE.

Baylis, G. B.	Forest	Hattiesburg
Bourne, Z. O.	Jefferson Davis	Oakvale
Coltharp, L.	Union	Myrtle
Crawford, H.	Chickasaw	Houston
Davis, W. F.	Wayne	Waynesboro
Dickson, N. S.	Wilkinson	Woodville
Jacob, K. D.	*Arkansas	West Helena
Johnson, C. S.	*Tennessee	Memphis
Mullen, J. D.	Oktibbeha	Agricultural College

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Oden, E. H.	Jones	Laurel
Pullo, L. E.	Monroe	Aberdeen
Purnell, F. L.	Webster	Winona
Smith, D.	Prentiss	Wheeler
Wells, T. K.	Lowndes	Caledonia

INDUSTRIAL EDUCATION COURSE.

AGRICULTURAL DIVISION.

Adams, E. L.	Attala	Ethel
Black, C. B.	Attala	Ethel
Collier, F. L.	Rankin	Johns
Foster, H. E.	Lawrence	Monticello
Foster, W. T.	Lawrence	Sontag
Giffin, H. G.	Winston	Louisville
Ginn, A. J.	Walthall	Tylertown
Hutchinson, J. H.	Oktibbeha	Sturgis
Musselwhite, H. E.	Attala	West
Nobles, F. W.	Madison	Flora
Whiteside, H. D.	Chickasaw	Okolona

BUSINESS DIVISION.

Barnard, H. W.	Sharkey	Anguilla
Barnes, J. A.	Marion	Kokomo
Berryhill, D. L.	Amite	Gloster
Boyett, C.	Kemper	Scooba
Bramlette, B.	Pontotoc	Troy
Campbell, H. C.	Madison	Flora
Cockrell, P. H.	Hinds	Jackson
Crawford, D. J.	Holmes	Durant
Crockett, W. B.	Sharkey	Anguilla
Culley, E. F.	Madison	Madison
Enochs, A. G.	Yalobusha	Coffeeville
Epperson, A. R.	Hinds	Raymond
Evans, L.	Scott	Morton
Harmon, H. H.	Oktibbeha	Agricultural College
Harmon, W. M.	Panola	Batesville
Harris, S. H.	Panola	Sardis
Holt, S. L.	Noxubee	Shuqualak
Huff, W. G.	Pike	Magnolia
King, E. D.	Sunflower	Drew
King, J. R.	Sunflower	Drew
Laird, R. E.	Jefferson Davis	Carson
Lammons, J. B.	Yazoo	Yazoo City
Lea, H. L.	Amite	Liberty
Lee, W. D.	Winston	Plattsburg
Ligon, R. H.	Chickasaw	Okolona
Lockard, W. E.	Jackson	Van Cleave
Long, J. C.	Hinds	Pocahontas
McLaurin, C. A.	Kemper	Lauderdale
McWilliams, W. K.	Kemper	Daleville
Mobley, C. B.	Hinds	Utica
Mullen, J. A.	Copiah	Glancy
Neal, T. J.	Hinds	Raymond
Parnell, F.	Lincoln	Bogue Chitto
Payne, W. H.	Lee	Saltillo

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Pearce, S. B.	Leflore	Itta Bena
Porter, W.	Amite	Gloster
Robinson, W. H.	Lee	Saltillo
Shearer, O. V.	Hinds	Raymond
Smith, K. D.	Montgomery	Winona
Smith, T. H.	Pike	McComb
Spell, R. V.	Copiah	Georgetown
Stuart, C. O.	Tallahatchie	Webb
Tartt, A. B.	Kemper	DeKalb
Tingle, C. M.	Copiah	Crystal Springs
Tynes, A. M.	Noxubee	Shuqualak
Waltman, V. B.	Coahoma	Friars Point
Yerger, J. C.	Walthall	Tylertown

TWO-YEAR AGRICULTURAL COURSE.

SECOND YEAR.

Bonelli, L. B.	Warren	Vicksburg
Evans, T. J.	Lowndes	Columbus
Filgo, W. E.	Lee	Tupelo
Lee, W. D.	Jasper	Waldrup
Lutrick, H. G.	Madison	Flora
Miller, N. B.	*Tennessee	Barlett
Stevenson, D. E.	Choctaw	McCool
Young, S. C.	*Louisiana	St. Joseph

FIRST YEAR.

Alston, T. F.	Coahoma	Clarksdale
Best, E.	Wilkinson	Woodville
Best, H A.	Wilkinson	Woodville
Bonner, E. E.	Jones	Sandersville
Boyce, C. F.	Tallahatchie	Glendora
Evans, A. P.	Lowndes	Columbus
Evans, R. B.	Issaquena	Snave
Gambrell, J. L.	Sunflower	Drew
Glassco, C. K.	Bolivar	Cleveland
Grittman, W. S.	Sunflower	Whitney
Huston, E. G.	Tate	Tyro
Knott, S. J.	*Arkansas	Crawfordsville
McConnell, A.	Lowndes	Columbus
Myers, H.	Perry	New Augusta
Ratchford, J. D.	*Alabama	Lafayette
Roth, D. M.	Sunflower	Drew
Speed, L.	*Texas	Athens
Thweatt, O. W.	*Tennessee	Kerrville
Thweatt, R. W.	*Tennessee	Kerrville

SPECIAL AGRICULTURAL COURSE.

Clapp, C. D.	Forest	Hattiesburg
Durr, W. B.	Lincoln	Brookhaven
East, F. J.	Tate	Senatobia
Fraser, F. W.	Winston	Noxapater
Holmes, O. F.	*Rhode Island	Newport
Hood, J. B.	Holmes	Jonestown

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Janes, G. L.	Hinds	Jackson
Jeffereys, O. B.	Bolivar	Huspuckena
Johnson, E. E.	Lafayette	Oxford
McCloud, O. F.	Coahoma	Farrell
McCloud, W. C.	Coahoma	Farrell
McDonald, A. S.	Pike	Tylertown
McMahon, O. H.	*Louisiana	New Iberia
McNiel, C. L.	Lee	Tupelo
Mixon, E. E.	Forest	Hattiesburg
Paxton, L. L.	Washington	Wilmot
Reese, R.	Lee	Tupelo
Vance, W. B.	*Louisiana	Napoleonville
Whittle, R. B.	Forest	Hattiesburg
Windrow, J. L.	Oktibbeha	Agricultural College

SPECIAL BUSINESS COURSE.

Long, H. L.	Carroll	N. Carrollton

TWO-YEAR TRAINING COURSE.

SECOND YEAR.

Atkinson, I.	Chickasaw	Houston
Baber, J. C.	Coahoma	Farrell
Barnes, O. W.	Marion	Kokomo
Bell, J. R.	Oktibbeha	Starkville
Belluomini, R. J.	Yazoo	Yazoo City
Brister, M. C.	Yazoo	Valley
Carithers, E. D.	Yalobusha	Oakland
Clayton, J. P.	Oktibbeha	Agricultural College
Coggins, B. G.	Lee	Nettleton
Connally, A.	Marion	Kokomo
Critz, H. M.	Oktibbeha	Agricultural College
Crothers, A. S.	Adams	Natchez
Dorroh, G. D.	Bolivar	Scott
Farnsworth, M. P.	*Tennessee	Buntyn
Garrett, T. W.	Harrison	Long Beach
Habig, W. P.	*Louisiana	Sorrento
Harmon, D. P.	Oktibbeha	Agricultural College
Hoffman, K. K.	Oktibbeha	Starkville
Johnson, A. G.	Yazoo	Valley
Jones, J. F.	Marion	Columbia
Ketcham, R. V.	Alcorn	Wenasoga
Kilpatrick, R. L.	Oktibbeha	Starkville
Krewitz, R. A.	Harrison	Pass Christian
Little, G. W.	Pike	McComb
Loeb, L C.	*Tennessee	Memphis
Lott, E.	Covington	Collins
Lott, G. L.	Lauderdale	Meridian
Mabry, M. H.	Coahoma	Dublin
Magee, D. H.	Walthall	Holmesville
McMurray, H. P.	Wilkinson	Turnbull
Mingee, R. G.	Oktibbeha	Agricultural College
Mohead, F. M.	Lafayette	Holcomb
Newell, S. K.	Pontotoc	Springville
Norsworthy, G. M.	Wayne	Waynesboro

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
O'Quinn, J. M.	Pike	Homewood
Owen, W. H.	Oktibbeha	Starkville
Pollard, J. M.	Bolivar	Pace
Porter, D. P.	Coahoma	Clarksdale
Potts, S. M.	Lowndes	Crawford
Quayle, J. T.	Oktibbeha	Sessums
Reed, B. S.	Yazoo	Silver City
Rouse, J. E.	Walthall	Knoxo
Self, D. O.	Oktibbeha	Starkville
Shanklin, E. E.	*Tennessee	Duden
Shanklin, I. A.	*Tennessee	Palmerville
Stevenson, W. E.	Choctaw	McCool
Trussell, E. W.	Grenada	Susie
Walley, C. H.	Green	Richton
Watwood, J. A.	*Tennessee	Moscow
Wier, R. G.	Oktibbeha	Starkville

FIRST YEAR.

Baber, B. B.	Coahoma	Farrell
Bell, E. B.	Oktibbeha	Starkville
Boyd, A. E.	Walthall	Tylertown
Bramlette, F. M.	Pontotoc	Troy
Cockrell, B. D.	Hinds	Jackson
Cockrell, E. L.	Hinds	Jackson
Clark, E. W.	Bolivar	Shaw
Coward, F. B.	Marshall	Holly Springs
Dickey, H. T.	Pike	Chattawa
Morrow, D. R.	Monroe	Amory
Shivers, C. W.	Bolivar	Boyle
Wash, A. P.	Amite	Liberty
Weber, H. W.	Yazoo	Yazoo City
Winstead, T. W.	Smith	Burns

PRACTICAL WORKING BOYS COURSE.

Alford, A. E.	Pike	Magnolia
Anthony, C. L.	Grenada	Grenada
Baskin, W. H.	Carroll	Winona
Bowlin, A.	Pike	McComb
Brent, C. M.	Jones	Laurel
Brent, F. C.	Jones	Laurel
Brown, C. K.	Hinds	Utica
Brown, M. R.	Lincoln	Bogue Chitto
Brumfield, L. M.	Pike	Magnolia
Cummings, E. L.	Choctaw	McCool
Deen, E. D.	Jefferson Davis	Bassfield
Dickens, R. E.	Jefferson Davis	Bassfield
Douglass, A. J.	Copiah	Carpenter
Dunnagin, W. C.	Jones	Laurel
Fitzgerald, G.	Pike	McComb
Giffin, F. R.	Winston	Louisville
Gunn, L. O.	Covington	Collins
Hanks, L. J., Jr.	Attala	Kosciusko
Jones, L. W.	*Tennessee	Medon
Lauchly, W.	Amite	Liberty

*Outside the State.

NAME.	COUNTY.	POSTOFFICE.
Leard, A. R.	Amite	Liberty
Mays, S. H.	Coahoma	Dublin
Messer, G. E.	Lauderdale	Meridian
Mills, R.	Harrison	Wortham
Mitchell, R. S.	Grenada	Grenada
Nix, W. J.	Jones	Sanford
Price, H. T.	Scott	Forkville
Price, W. C.	Scott	Beach
Pyle, H. L.	Winston	Louisville
Reed, A. S.	Winston	Fern Springs
Simmons, S. S.	Pike	Magnolia
Slaughter, A. S.	Winston	Plattsburg
Slaughter, G. C.	Winston	Plattsburg
Smith, H. L.	Lincoln	Wesson
Smith, W. E.	Oktibbeha	Starkville
Swann, J. P.	Desoto	Kossuth
Walker, J. W.	Carroll	Black Hawk
Yarbrough, J. F.	Walthall	Tylertown
York, A. V	Yalobusha	Coffeeville

UNCLASSIFIED.

Akers, G. W.	Tishomingo	Iuka
Brace, C. H.	*Ohio	Bryan
Compton, J. T.	*Louisiana	Opelousas
Compton, R. T.	*Alabama	Linden
Dunn, C. W.	Lauderdale	Meridian
Francis, W. C.	Monroe	Nettleton
Graham, S.	Lauderdale	Meridian
Hand, W. M.	Lauderdale	Lauderdale
Hurt, J. A.	Chickasaw	Okolona
Jones, R. E.	Attala	Kosciusko
McCaskey, A. E.	Lamar	Sumrall
Miller, C. A.	Sunflower	Drew
Patten, C. E.	*Louisiana	New Orleans
Reynolds, W. H.	Oktibbeha	Starkville
Sasser, H. A.	Lincoln	Bogue Chitto
Vanzandt, A.	Simpson	Braxton
Yeates, M. H.	Monroe	Aberdeen

SUMMARY.

Graduate Students	18
Agricultural Seniors	82
Engineering Seniors	27
General Science Seniors	11
Industrial Education Seniors	12
Agricultural Juniors	111
Engineering Juniors	55
General Science Juniors	30
Industrial Education Juniors	11
Agricultural Sophomores	142

*Outside the State.

Engineering Sophomores	101
General Science Sophomores	25

INDUSTRIAL EDUCATION SOPHOMORES.

Agricultural Division	12
Business Administration Division	34
Mechanic Arts Division	1
Agricultural Freshmen	152
Engineering Freshmen	94
General Science Freshmen	14

INDUSTRIAL EDUCATION FRESHMEN.

Agricultural Division	11
Business Administration Division	48
Two Year Agriculture—Second Year	8
Two Year Agriculture—First Year	19
Special Agriculture	22
Special Business Administration	1
Two Year Training Course—Second Year	50
Two Year Training Course—First Year	14
Practical Working Boys	57
Unclassified	17
Unaccounted for	11
Summer School	435
Total Attendance	1,625

SUMMER SCHOOL STUDENTS.

NAME	1915	POSTOFFICE
Adams, N. S.		Laurel
Allen, Miss Emogene		Bellefontaine
Alderman, W. H.		Goodman
Alford, Miss Rosa		Itta Bena
Anderson, Miss Hortense		Muldon
Anderson, D.		Tupelo
Anderson, L. W.		Ovett
Anderson, Miss Sarah E.		Centerville
Anderson, W. E.		Scott
Anthony, J. C.		Agricultural College
Arnold, E. S.		Gloster
Atkins, Miss Tommie		Sturgis
Archibald, Miss Delia		Maben
Atkinson, Miss Willye		Louisville
Bacot, G. W.		Agricultural College
Baggett, A. J.		Anguilla
Bailey, J. W.		Jackson
Bailey, W. E.		Jackson
Ball, M.		Mendenhall
Barrentine, E. S.		Itta Bena
Bailey, Miss Alla M.		Kosciusko
Barron, D. N.		Pearl
Beacham, Miss Bettie		McComb
Basemore, Miss Lucille		Starkville
Beaty, J. A.		Blue Mountain
Beard, A. V.		Little, La.
Bell, Miss Mildred		Starkville
Bell, Miss Viola		Starkville
Blackwood, G. T.		Drew
Bonslagel, Miss Connie		Agricultural College
Bonslagel, Miss Cleta		Jackson
Bowen, Mrs. R. L.		Agricultural College
Bradford, T. C.		Oakland
Brand, Thos.		Decatur
Briscoe, Miss Margaret		Agricultural College
Brooks, Mrs. T. J.		Starkville
Brooks, C. S.		Columbus
Brooks, Miss Lola		Maben
Brown, Mrs. H. B.		Agricultural College
Brumfield, H. B.		Magnolia
Brunson, Miss Bessie		Agricultural College
Burke, Miss Ora		Gershorm
Butler, S. D.		Sturgis
Burrows, Miss Annie Laurie		West Point
Bush, Mrs. H.		Walthall
Burkett, Miss Geneva		Columbus

NAME.	POSTOFFICE.
Butts, J. L.	Artesia
Bullock, C. T.	Holmesville
Bullock, G. W.	Tylertown
Busby, E. L.	Bogue Chitto
Byrd, C. C.	Scooba
Byars, Miss Inez	Weir
Byrd, E. H.	Smithville
Camp, Miss Ruby	Starkville
Carpenter, Miss Maude	Starkville
Carpenter, Miss Bettie	Columbus
Carpenter, Miss Martha V.	Starkville
Carpenter, R. B.	Agricultural College
Carpenter, C. J.	Starkville
Carter, Miss Abbie	Noxapater
Carothers, A. B.	Starkville
Carothers, Miss Rose	Starkville
Case, J. G.	Stonewall
Carter, E.	Noxapater
Cassidy, Miss Sarah	Saltillo
Chilton, Mrs. H. S.	Agricultural College
Chapman, B. H.	Rosehill
Clark, L. E.	Starkville
Clardy, Miss Roxie	Starkville
Clardy, Miss Jennie	Starkville
Clayton, Mrs. E. P.	Agricultural College
Clark, Miss Lois	Aberdeen
Clayton, E. P.	Agricultural College
Coen, E. E.	Greenville
Cockerham, K. L.	Saucier
Cooper, Miss Maggie	Louisville
Cooper, A. S.	Yazoo City
Cooper, Miss Evin	Columbus
Cooper, Miss Mildred	Eupora
Critz, J. E.	Starkville
Crumpton, Miss Anita	Starkville
Crosby, Miss Maggie	Aberdeen
Crowell, Miss Gladys	Gladys
Cunningham, Miss Elizabeth	Starkville
Cunningham, Miss Kate	Booneville
Crothers, Miss M. A.	Natchez
Curet, A. B.	Kiln
Davidson, Miss Edna	Hernando
Davis, V. W.	Collins
Davis, Miss Ida	Lauderdale
Dickens, Miss Elizabeth	Durant
Dilsworth, Miss Wyda	Amory
Dilsworth, Miss Reba	Amory

NAME.	POSTOFFICE.
Douglass, Miss Edna	Maben
Dubose, S. R.	Sherrod
Dunn, Miss Cora	West Point
Eakin, Miss Nettie	Longview
Eason, G. G.	Derma
Earhart, H.	Louisville
Early, Mrs. T. A.	Starkville
Eckels, Miss Bessie	Mantee
Eckford, Miss Fannie	Starkville
Edwards, Miss Hattie	Sturges
Edwards, Miss Maude	Bellefontaine
Ellis, Miss Mamie	Columbus
Ellis, Miss Elizabeth	Columbus
Eikner, R. W.	Hamilton, La.
Farmer, Miss M. H.	Brooksville
Farish, G. C.	Sidon
Felton, L. N.	Mer Rouge, La.
Fisher, J. G.	Cleveland
Fontenot, J. A.	Cataro, La.
Foster, Miss Nannie	Louisville
Foster, Miss Emma	Vicksburg
Fox, Miss Frances	Scott
French, C. O.	Hamburg
French, H. O.	Brooklyn
Frierson, W. V.	Columbus
Gable, Mrs. Ella	Maben
Gay, Miss Emily	Starkville
Gay, Miss Mary	Starkville
Giffin, T. T.	Louisville
Gill, Miss Jessie Mae	Starkville
Gill, Miss Arleen	Starkville
Gilmore, Miss Elizabeth	West Point
Goode, Miss Mary	West Point
Goode, Miss Elizabeth	West Point
Goza, R.	Starkville
Gladney, Miss Annie D.	Starkville
Gladney, Miss Zilda	Houston
Grantham, O. F.	Collins
Grantham, Mrs. O. F.	Collins
Gray, Miss Josie	Elizabeth
Gray, Miss Lizzie	Elizabeth
Gray, W. G.	Hattiesburg
Gregg, Miss Annabel	Maben
Greene, Mrs. A. E.	Starkville
Green, P.	Sturges
Greer, A. H.	Bogue Chitto
Griffin, A. C.	Mathiston

NAME.	POSTOFFICE.
Halbert, Miss Ethel	Agricultural College
Halbert, Miss Nancy	Columbus
Halbert, Miss Alice	Columbus
Halbert, Miss Mary L.	Columbus
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Hannah, Miss Edna	Sturges
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Hartness, Miss Jennie Mae	Starkville
Hartness, Miss Laura	Starkville
Hartness, L. B.	Starkville
Harmon, D. P.	Agricultural College
Harmon, Miss Mary	Agricultural College
Hardy, J. S.	Bellefontaine
Hardy, Miss Bessie	Bellefontaine
Harden, J. C.	McCool
Harris, Miss M. L.	Starkville
Henderson, Miss Dora	West Point
Henderson, Miss Alice	West Point
Harris, Mrs. J. M.	Noxapater
Henry, Miss Lula	Starkville
Hill, Miss Carrie	Anner
Hogan, W. A.	Starkville
Hollinshed, C.	Starkville
Holliday, Miss Sadie	Starkville
Holton, J. C.	Louisville
Hooper, J. L.	Union
Howell, J. F.	Verona
House, Miss Lottie	Barr
Howard, Miss Lucy	Columbus
Howerton, J. D.	Starkville
Howerton, H. B.	Starkville
Hubbard, Miss Irene	Macon
Hubbard, T. G.	Macon
Hughes, Mrs. H. P.	Agricultural College
Hughes, Miss Annabel	Agricultural College
Hull, B. G.	Columbus
Hurst, F. J.	Fern Springs
Hurst, F.	Fern Springs
Hollingsworth, Miss Lottie	Kosciusko
Ingram, I. C.	Agricultural College
Jacobs, R. D.	Agricultural College
Jackson, W. P.	Pheba
Jennings, Miss Catherine	Agricultural College
Jennings, Miss Mary Olive	Agricultural College
Jennings, Mrs. W. J.	Agricultural College
Jones, C. D.	Mize

NAME.	POSTOFFICE.
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Jones, L. W.	Toone, Tenn.
Johnson, Miss Ida	Schlater
Jones, E.	Independence
Joiner, Miss Julia	Tupelo
Jurney, L.	Longview
Jordan, Miss Oma	Columbus
Jumper, H. Y.	Rienzi
Kennedy, Miss Elizabeth	Mayhew
Kinney, H. C.	Starkville
King, H. L.	Buena Vista
Kirkpatrick, L. L.	Starkville
Korb, A. F.	Agricultural College
Kyle, H. A.	Saltillo
Lackey, J. B.	Clinton
Lagent, P.	Duckhill
Lawson, Miss Mary	Prairie
Lavender, F. C.	Scooba
Lee, L. E.	Waldrup
Lewis, M. W.	Michigan City
Lewis, R. E.	Meridian
Lindsey, E. C.	Tula
Little, Miss Virginia	Wesson
Love, G. H.	Goodman
Love, Miss Emily	Osborn
Long, Fred	Jackson
Loftis, Miss Jennie	Columbus
Locke, Miss Jamie	Columbus
Locke, Miss Julia	Columbus
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Logan, Miss Lois	Agricultural College
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Lowrey, W. T.	Blue Mountain
Long, Miss Vina	Saltillo
Lyle, L. R.	Lena
Magruder, B. L., Jr.	Starkville
Magruder, R. H.	Starkville
Magruder, Mrs. W. H.	Agricultural College
Marshall, Miss Sarah	Agricultural College
Marshall, Miss Louise	Agricultural College
Marshall, Mrs. M. M.	Agricultural College
Martin, Miss Emma	Pelahatchie
Martin, Mrs. Laura	Corinth
Martin, Miss Mary E.	Greenwood
Mashburn, Miss Maud	Pelahatchie
Maxwell, R. M.	Starkville
McArthur, D.	Agricultural College

NAME.	POSTOFFICE.
McArthur, J. W.	Gholson
McCoy, W. W.	Belzoni
McGough, McN.	Morton
McGowen, Miss Lydia	Columbus
McGowen, Miss Elizabeth	Columbus
McIntosh, Miss Laura	Wesson
McKay, H. M.	Agricultural College
McKay, M. B.	Hervey
McKinzie, J. D.	Seminary
McKay, Miss Annia Laurie	Agricultural College
McNiel, C. L.	Tupelo
McNeill, S. C.	Quitman
McPherson, H. A.	Coldwater
McKnight, Miss Charlotte	Corinth
McReynolds, E. C.	Starkville
McReynolds, Miss Lottie	Starkville
Milan, Mrs. Lula	Anguilla
Miller, Miss Marguerite	Starkville
Miller, Miss Annie E.	Okolona
Miller, Miss Adelle	Okolona
Miller, Miss Marie	Canton
Miner, R. C.	Lumberton
Molloy, Miss Louise	Columbus
Moncrief, Miss Ollie	Starkville
Moncrief, W. S.	Starkville
Montgomery, Miss Mary Ida	Pickens
Montgomery, Miss Una	Pickens
Moore, Miss Antoinette	Columbus
Moore, Miss Hettie B.	Agricultural College
Morgan, Miss Inzo	Baldwyn
Moore, W. P.	Pascagoula
Mothershed, Miss Annie	Agricultural College
Mothershed, Miss Kate	Agricultural College
Murphy, Miss Bessie	Meridian
Murphy, Miss Genna	Caledonia
Nance, Miss Annie	Maben
Nabers, Miss Beulah	Louisville
Neal, H. S.	Carrollton
Nethery, S. K.	Shuqualak
Newton, Miss Mary	Caledonia
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Nickels, Miss Frankie	Caledonia
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Norwood, J. S.	Carrollton
Owen, Miss Julia Leon	Starkville
Parker, Thos.	Louisville

NAME.	POSTOFFICE.
Parham, H.	Saltillo
Patten, T. W.	Tylertown
Patterson, T. M.	Agricultural College
Patten, Miss Lucy	Tylertown
Perkins, Miss Alice	Starkville
Perkins, Miss Mattie	Starkville
Perkins, Miss Della	Starkville
Perkins, Miss Elsie	Starkville
Perkins, Miss Meta	Starkville
Perkins, Miss Tennie	Starkville
Peterson, Mrs. J. L.	Brooksville
Phelps, Miss Daisy	West Point
Phelps, Miss Imogene	West Point
Pierce, Miss Carroh	Hickory
Pinnix, J. L.	Mathiston
Pittman, R. C.	Coffeeville
Pollard, H. T.	Durant
Pope, Miss Annie	Starkville
Pope, Pno. W.	Starkville
Powell, Mrs. C. B.	Agricultural College
Pratt, Miss Sallie	Inverness
Prentice, Mrs. L. G.	Magnolia
Price, J. H.	Forkville
Provine, C. C.	Grenada
Puller, Miss Lurline	Starkville
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Ramsey, Miss Bess	Houston
Ramsey, Miss Gertrude	Houston
Randle, Miss Fannie	Starkville
Randle, Miss Nannie	Starkville
Randle, Miss Tallulah	West Point
Randle, Miss Yetta	West Point
Raney, E. R.	Vimville
Ratliff, Miss Bessie	Kosciusko
Reeves, Miss Mary	Columbus
Ranck, W. A.	Agricultural College
Renfrow, S. A.	Beauregard
Reynolds, W. H.	Starkville
Rice, Miss Harriett	Starkville
Rich, C. S.	Richton
Richey, Miss Loda	Starkville
Richey, Miss Marguerite	Starkville
Richmons, Miss Enid	Carlisle
Redditt, Miss Emmie	Scooba
Richardson, Miss Bessie	Columbus
Reed, Miss Ruth	Jackson

NAME.	POSTOFFICE.
Ritch, Miss May	Pheba
Ritch, Miss Ruth	Pheba
Riggan, R. C.	Amory
Roark, Mrs. L.	Agricultural College
Robert, Miss Sadie	Agricultural College
Robert, W. P.	Agricultural College
Roberts, E. L.	Tylertown
Robertson, Prof. J. E.	Agricultural College
Rogers, Miss Mary	Starkville
Roseborough, W.	Senatobia
Ross, Miss Alice	Moultrie, Ga.
Rowan, Miss Sarah	Bogalusa
Ross, J. A.	Cascilla
Russell, C. E.	Belzoni
Sanders, G.	High Point
Saul, R. L.	Starkville
Sanderson, H. F.	Buena Vista
Sanders, Miss Jettye	Louisville
Scott, D. M.	Woodville
Scroggins, C. E.	Starkville
Self, O.	Starkville
Severance, Miss Emma	Lauderdale
Shaw, O. A.	Winona
Sharpe, J. H.	Natchez
Simmons, H. L.	Magnolia
Skelton, Miss Daisy	Bellefontaine
Sligh, Miss Coy	Houston
Smith, A. C. L.	Enterprise
Smith, C.	Tylertown
Smith, Miss Hortense	Greenwood
Smith, Mrs. H. J.	Starkville
Smith, J. F.	Starkville
Smith, Miss Tadie	Starkville
Speed, Miss Bessie	Starkville
Spann, Miss Rosa	Highlandale
Stanley, Miss Alice	Caledonia
Stanton, H. W.	Memphis, Tenn.
Staples, Miss Beulah	Cedar Bluff
Staten, Miss Birdie	Houlka
Stephenson, Miss Annie	Columbus
Stephenson, Miss Mary	Columbus
Stephens, Miss Helen	CedarBluff
Stephens, Mrs. Olive	Cedar Bluff
Stevens, B.	Hattiesburg
Stingley, R.	Durant
Stinson, Miss Corinne	Columbus
St. John, C. J.	Brooksville

NAME.	POSTOFFICE.
Stokes, Miss Mary	Columbus
Suber, Mrs. J. E.	Crystal Springs
Sudduth, Miss Annie	Starkville
Sudduth, W. R.	Starkville
Sullivan, Miss Kathleen	Sturges
Sutherland, C. F.	Benoit
Swann, Miss Fannie	Macon
Swann, P. R.	Macon
Swann, Miss Sallie	Macon
Sykes, Miss Nannie	Starkville
Tate, T. O.	Laurel
Tate, W. B.	Lena
Tate, W. L.	Osyka
Taggart, Miss Ruth	Moorehead
Temple, Miss Lula	Kosciusko
Thomas, Miss Annie	Macon
Thomas, S. M.	Macon
Thompson, E. S.	McCool
Tillman, J. P.	Centerville
Tims, F. M.	McCool
Treen, Miss Pearl	Purvis
Turner, Miss Dudie	Dixon
Turner, J. M.	Dixon
Turner, Miss Wortley	Crawford
Valentine, Miss Adelaide	Starkville
Valentine, Miss Mildred	Starkville
Varnado, Miss Effie	Magnolia
Varnado, H. R.	Osyka
Vaughn, J. E.	Scooba
Vaughn, M. C.	Caledonia
Vaughn, R. O.	Caledonia
Wall, W. E.	Newton
Walker, Miss Lola	Agricultural College
Walker, W. W.	Agricultural College
Wallace, H. F.	Starkville
Wallace, Mrs. J. S.	Starkville
Wallace, Miss Lois	Starkville
Watson, E. L.	Ellisville
Watson, W. B.	Lexington
Watkins, Miss Laura	West Point
Ward, Miss Lizette	Canton
Weddell, Mrs. F. J.	Agricultural College
Welborn, H. C.	Starkville
Weldon, D. L.	Buena Vista
West, J. T.	Agricultural College
White, C. C.	Carrollton
White, Mrs. C. C.	Carrollton

NAME.	POSTOFFICE.
White, Miss Kate	West Point
White, J.	Maben
Wilkinson, Miss Bonnie	Houston
Wier, Miss Lois	Columbus
Wilkinson, Miss Bonnie	Houston
Williams, W. B.	Prentiss
Willis, Mrs. Ruby	Agricultural College
Wingo, G. W.	Holmesville
Wooten, H. B.	Coldwater
Wooten, H. R.	Coldwater
Yeates, Mrs. E. D.	Starkville
Yerger, Miss Lela	Grenada

DEGREES CONFERRED, 1915.

MASTER OF SCIENCE.

NAME	STUDY.
Kenna, J M.	Industrial Education
Patterson, T. M.	Industrial Education
Robert, J. C.	Agriculture
White, E. F.	Agriculture

BACHELOR OF SCIENCE.

AGRICULTURAL COURSE.

NAME	POSTOFFICE.
Aldrich, R. E.	Michigan City
Anders, C. B.	Vicksburg
Anderson, J. C.	Ellisville
Arnold, G. F.	Starkville
Bacot, G. W.	McComb
Bailey, T. W.	Kosciusko
Barron, D N.	Pearl
Bearden, C. C.	Holmesville
Bending, H.	Jackson
Brown, N. H.	Columbus
Bullock, C. T.	Holmesville
Bynum, E. K.	Saltillo
Byrd, E. H.	Smithville
Carothers, A. B.	Starkville
Carter, H. H.	Blue Mountain
Carey, C. L.	Lake City
Chaffin, J.	Nettleton
Cobb, E.	Pine Valley
Cook, A. B.	Hattiesburg
Cox, H. E.	Starkville
Critz, J. E.	Starkville
Deen, E. E.	Bassfield
Ellzey, E. V.	Tylertown
Gernon, W.	Agricultural College
Graham, E. M.	Belzoni
Grantham, H. G.	Agricultural College
Hinton, C. R.	Flora
Holton, J. C.	Louisville
Howell, W. C.	Starkville
Hewerton, J. D.	Starkville
Hull, J. W.	Starkville
Hurst, F.	Fern Springs
Hurst, F. J.	Fern Springs
Jones, K. U.	Lexington, Ky.

NAME.	POSTOFFICE.
Legett, H. H.	Ames, Iowa
Lyle, L. R.	Lena
Marshall, A. R.	Montpelier
Martin, H. E.	Macon
Maxwell, J. A.	Starkville
McWilliams, L. C.	Daleville
McWilliams, W. R.	Starkville
Montgomery, J. P.	Starkville
Moore, S. R.	Monroe, La.
Morgan, E. G.	Osyka
Myers, M. P., Jr.	Dundee
North, L. G.	Silver City
Pace, W. B.	Lake
Powers, H. T.	Starkville
Peters, C. G.	Mashulaville
Raney, E. R.	Vimville
Rogers, A. M.	West
Rogers, F.	Ora
Schwarzkopf, H. V.	Chicago, Ill.
Scott, J. C.	Mantee
Steele, C. G.	Charleston
Steene, W. E.	Florence
Strahan, L. C.	Hattiesburg
Suttle, A. D.	Louisville
Terry, J. E.	Starkville
Thomas, S. M., Jr.	Macon
Treleaven, H. H.	New Orleans, La.
Underwood, T. H., Jr.	Kossuth
Vaughn, R. O.	Caledonia
Vernon, W. E.	McComb
Whittington, C. E.	Meridian
Williford, T. Y.	Carrollton

BACHELOR OF SCIENCE.

ENGINEERING COURSE.

Allen, D. E.	Memphis, Tenn.
Ames, N. B.	Clarendon, Va.
Blackwood, G. T.	Whitney
Boone, S. J.	Wanilla
Brandon, L. W.	Picnkneyville
Clower, C. M.	Durant
Cole, C. E.	Yazoo City
Cozzani, O. A.	Vicksburg
Critz, S. P.	Starkville
Crouch, T. M.	Madison
Daniel, W.	Blue Mountain
Dillard, C. L.	Lula

NAME.	POSTOFFICE.
Feigler, B. C.	Minter City
Francis, J. S.	Tupelo
Frentz, G. P.	Pascagoula
Gholston, J. G.	Woodland
Hudson, J. D.	Rienzi
Nethery, S. K.	Shuqualak
Olive, J. M.	Camden
Potter, F. E.	Hattiesburg
Penticost, E. L.	Sidon
Prichard, D. L.	Wheeler
Rook, C. G.	Buena Vista
Smith, M. P.	Batesville
Taylor, W. P.	Isola
Turnage, J. G.	Grenada
Varnado, O. D.	Osyka
Walker, W. W.	Agricultural College
Wise, J. D.	Jackson, Tenn.
Wooten, H. B.	Coldwater
Worthington, F. H.	Collins
York, C. V.	Coffeeville
York, E. L.	Coffeeville

GENERAL SCIENCE COURSE.

Bailey, J. W.	Jackson
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Davis, V. W.	Collins
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Ellzey, E. F.	Tylertown
Enochs, J. W.	Shannon
Gaston, B. W.	Starkville
McArthur, H.	Preson
McCarty, D. M.	Enterprise
McLavy, J. R.	Coffeeville
Thompson, R.	Brookhaven
Thompson, T.	Brookhaven

INDUSTRIAL EDUCATION COURSE.

Anderson, J. R.	Zeiglerville
Aycock, D. B.	Derma
Hubbard, T. G.	Macon
Kinney, H. C.	Memphis, Tenn.
Prisock, N.	Louisville
Rosborough, W.	Senatobia
Tomlinson, E. S.	Louisville
Wells, P. L.	Iuka
Winkler, M. H.	Meridian

CERTIFICATES AWARDED.

TWO YEAR AGRICULTURAL COURSE.

NAME.	POSTOFFICE.
Brown, W. H., Jr.	Addie
Grantham, A. G.	Collins
Lutrick, H. G.	Flora
Mingee, J. C.	Pine Ridge
Robinson, G. J.	Pelahatchie
Stevens, J. M.	Richton
Sullivan, W. W.	Webb

AWARDS, 1915.

ALBERT CRITZ MEMORIAL MEDAL.

For the best vocational talk by a member of the graduating class.

SUTTLE, A. D.....Winston County

T. L. MELLEN MEDAL.

For the best oration by a regular Senior or Junior.

SIMMONS, H. L.....Pike County

ALUMNI MEDAL.

For the best debate by a regular Junior of either literary society.

SIMMONS, H. L.....Pike County

MAGRUDER MEDAL.

For the best critique of a literary classic, by a regular Sophomore.

KNOST, M. F.....Harrison County

DIALECTIC DEBATE MEDAL.

For the best argument by a Sophomore member of the Dialectic Literary Society.

O'QUIN, C. L.....Pike County

PHILOTECHNIC DEBATE MEDAL.

For the best argument by a Sophomore member of the Philotechnic Literary Society.

REAGAN, L. B.....Bolivar County

DIALECTIC DECLAMATION MEDAL.

For the best declamation by a Freshman or sub-Freshman member of the society.

HUGHES, H. P.....Oktibbeha County

PHILOTECHNIC DECLAMATION MEDAL.

For the best declamation by a Freshman or sub-Freshman member of the society.

MCCORMICK, H. P.....Lincoln County

SABRE FOR MILITARY EXCELLENCE.

(Presented by the M. C. Lilley & Company)

For the best drilled military company.

THOMPSON, R.....Lincoln County

PROGRAM FOR COMMENCEMENT, 1916.

SATURDAY, MAY 27th.

8:30 P. M.—Junior Debate for Alumni Medal.
Subject: Resolved, That the United States government should own, maintain, and operate a merchant marine.

Affirmative:	Negative:
Philotechnic Literary Society	Dialectic Literary Society
Reagan, L. B.	Smith, C. C.
Upshaw, R. V.	Lyle, C.

SUNDAY, MAY 28th.

10:00 A. M.—Sermon by Dr. T. S. Clyce, President Austin College, Sherman, Texas.

8:30 P. M.—Sermon before the Young Men's Christian Association by Dr. Clyce.

MONDAY, MAY 29th.

10:00 A. M.—Addresses by Representatives of the Senior Class: Contest for Albert Critz Memorial Medal in Vocational Speaking.
Day, L.: Good Bridges.
Falls, H. D.: Silage—An Essential to Feeding.
Hobly, E. L.: The Agricultural High School and the County.
Kimbrough, M. M.: The Universities and the Industries.
McAlister, J. T.: Tick Eradication.
Netto, L. J.: The Influence of Science on Industry.
Smith, M. E.: The Teacher and the County.
Stanton, H. W.: The Maintenance of Soil Fertility.
Willemain, F. H.: Good Roads.

4:30 P. M.—Exhibition Drill.

8:30 P. M.—Alumni Annual Address by Honorable J. W. Fox, Scott, Miss.

TUESDAY, MAY 30th.

10:00 A. M.—Annual Address by Honorable P. P. Claxton, United States Commissioner of Education, Washington, D. C.
Delivery of Diplomas.

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